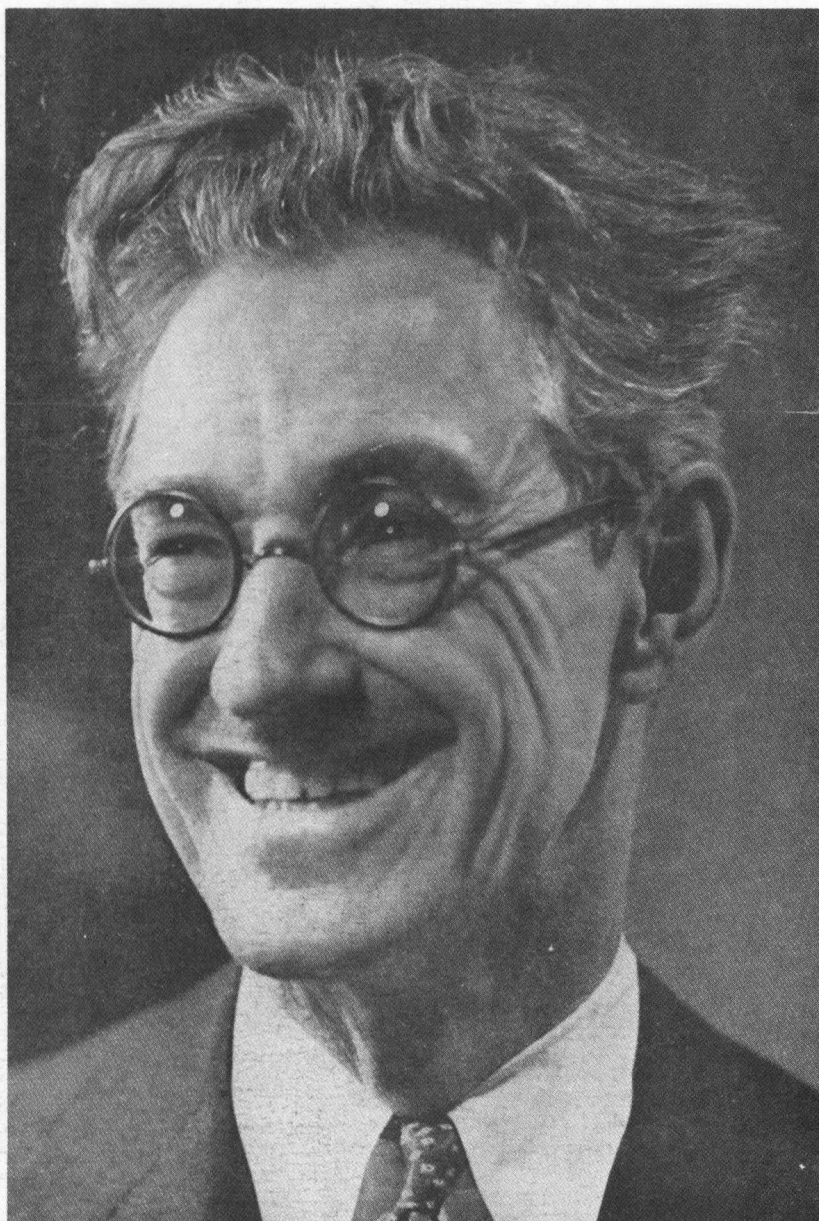


*The Society of
Automotive
Historians*

AUTOMOTIVE HISTORY REVIEW

PROPERTY OF
ANTIQUE AUTOMOBILE CLUB OF AMERICA
LIBRARY AND RESEARCH CENTER, INC.
HERSHEY, PENNSYLVANIA

FALL 1981 ISSUE NUMBER 14



A PUBLICATION OF THE SOCIETY OF AUTOMOTIVE HISTORIANS, INC.

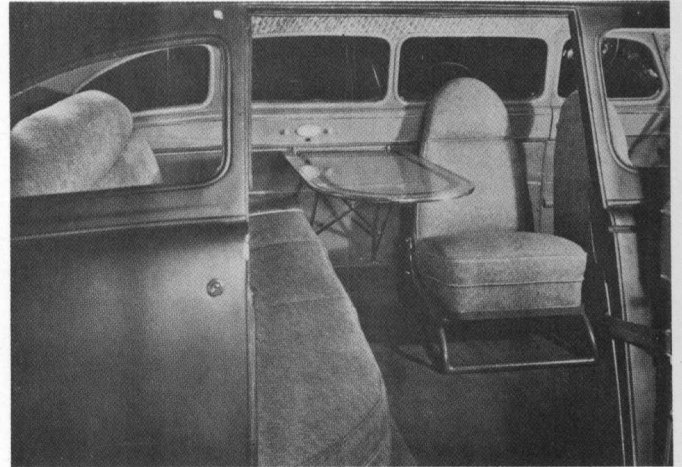
WILLIAM B STOUT

On last issue's cover we showed A.L. Dyke and gave him credit for being certainly one of the earliest producers of kit cars, an industry that never completely died out and that in the past twenty years has experienced a period of considerable growth. On the cover of this issue we have William Bushnell Stout (1880-1956), whose advanced Scarab cars of 1935 were without question the ancestors of that other automotive phenomenon of the sixties and seventies, the bus or van concept.

Rich Taylor notes it first when he wrote about the Scarab in *Special Interest Autos*, January-February 1976. The Scarab's design, with rear engine, driver forward, boxy space frame, and flat floor which allowed flexible interior layouts contains all the elements which evolved into the VW bus and the vans built by most other makers today. Changing lifestyles have put the van type vehicle into uses that even Bill Stout's fertile imagination may not have considered. As a mobile office, mobile store, mobile home, used for purposes legal and illegal, moral and immoral, the adaptable van is one of the most significant automotive creations of our time.

Bill Stout is more famous as the father of the modern airplane. Before he conceived the thick wing with its supporting structure inside, airplanes merely flew reluctantly: with Stout's wing they developed into a practical and efficient means of transport. This fascinating man was responsible for numerous other important developments but his airplanes of the twenties and his cars of the thirties embodied original ideas of the highest order that have become major influences on our daily routines.

A fine story on Stout (Detroit Da Vinci, by Robert W. Marks) appeared in *The Saturday Evening Post*, December 7, 1940 and is the source of our cover photo.



Movable seats, adjustable table that could be stored under the 65" wide rear seat, indirect lighting, insulated walls, sealed windows and a full indirect heating and ventilating system were features of the Scarab interior, anticipating in many ways the roomy and comfortable interiors of our van type vehicles of the present. The Scarab's engine was mounted above the rear axle and employed a chain to transmit the power, anticipating the layout later used in the front-drive Oldsmobile Toronado.

BACK ISSUES OF AUTOMOTIVE HISTORY REVIEW

Except for numbers two and eight, all issues of the Review are available. The price is \$2.00 per copy, postpaid. The first six issues are indexed in number seven. We also maintain a stock of most issues of the Newsletter, at 50 cents each. Make checks payable to The Society of Automotive Historians and sent to the editor's address.



Within an overall length of 194" the Scarab cradled a floor area 106" long, 67" wide, low to the ground and perfectly flat. Modern front-engine vans place the driver in about the same location and locate the engine where the Scarab carried its spare wheel, gaining open space at the rear at the expense of a higher floor. The Volkswagen bus carries on the Scarab layout but in the interest of compactness places driver and passenger above the front wheels and without easy access to the rest of the passenger space. These photos from original Scarab factory literature are from the editor's collection.

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Front Cover: William B. Stout (1880-1956)

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The Twyford Four-Wheel-Drive Motor Car

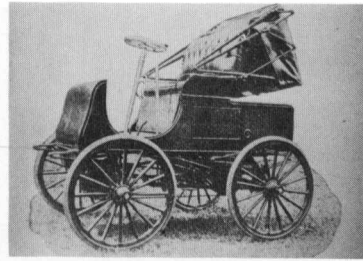
by Donald J. Summar

Robert E. Twyford, a general contractor in Pittsburgh, Pennsylvania, designed a four-wheel-drive vehicle in the late 1890s. He applied for a patent on his "Driving-Gear for Motor-Carriages: on 7 July 1898. With his patent application pending, Twyford and his backers organized the Twyford Motor Vehicle Company in Pittsburgh in May 1899. An item on the firm in the 24 May 1898 issue of *Horseless Age* would seem to indicate that Mr. Twyford had built a prototype vehicle prior to the founding of the company. The patent vehicle prior to the founding of the company. The patent drawings show a vehicle powered by an electric motor; the motive power of Twyford's prototype is not known.

Twyford's patent (#646,477), granted 3 April 1900, shows his vehicle to have an amazing combination of many sets of gears and shafts which provided an extremely crude form of four-wheel-drive with a primitive type of power steering. The power plant was mounted at the rear of the vehicle and drove a shaft which ran nearly the full length of the chassis. This shaft contained two pairs of friction clutches along its length, one set for low and second gears and the other for high and reverse gears. Gears for each speed were meshed with gears on a second shaft parallel to the first, which in turn drove the rear axle through a bevel gear and the front axle through a special three-part bevel gear. No differential gears were employed. The gear on the front axle was concentric, made in three parts, one inside another, in a primitive type of "universal" joint which permitted the bevel gears to stay in mesh when the front axle was turned.

Twyford must have been planning on using a gasoline engine in his vehicle even though he showed an electric motor as power plant in the patent drawings. An electric motor would not have required the three speed gear train Twyford devised and such an involved gear train, with loss of power at each stage, would have quickly drained electric batteries of that era. The four friction clutches no doubt proved to be a source of frequent trouble, if such an arrangement was used on any Twyford vehicle actually constructed. In *Horseless Carriage Days* (Harper & Brothers, 1937), Hiram Percy Maxim discussed friction clutches, which he had considered using on the Columbia Mark VIII Lot 4 in 1898. He quickly discovered that four friction clutches took up far too much space and required far too much tinkering to ever be practical. One wonders if Robert Twyford quickly learned the same lesson when he put his patent design into practice.

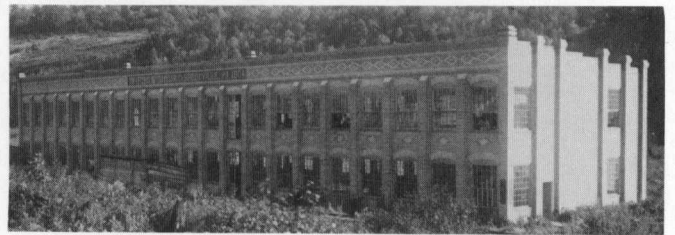
The Twyford vehicle's power steering worked from the front end of the engine-driven shaft, which had a bevel gear which ran between two bevel gears fitted to a cross shaft behind the front axle and parallel to it. This shaft was connected to the front axle by a worm gear which meshed with a gear cut into the back edge of the "fifth wheel" mechanism that carried the front axle, a solid axle without steering knuckles. The steering lever, when moved by the driver, engaged one of the two bevel gears on the cross shaft to provide power to turn the vehicle to the left or to the right. The front axle mechanism had an arm which restricted lateral movement to prevent oversteering and a lever which disengaged the bevel gear when the wheels reached left or right lock. This mechanism apparently provided a rather slow rate of turn which must have made negotiating anything other than a gradual curve in the road rather tricky.



A 1902 Twyford Stanhope. This is the only known photograph of a Pittsburgh-built Twyford.
(author's collection)

Twyford probably encountered some difficulty in getting his primitive design transformed into a working motor car, for nothing about company activities was reported in the trade journals between May 1898 and January 1901, when a brief article appeared in the *Cycle & Automobile Trade Journal*. The article listed a wide variety of Twyford models, including a stanhope priced at \$1,200; a runabout priced at \$1,000; four-passenger motor cars priced at from \$1,200 to \$1,500; a delivery wagon priced at \$1,000; a stage priced at \$1,200; and heavy trucks for which prices were available upon inquiry. The article stated that "the Twyford Company can apply any power but recommend gasoline." Delivery was listed as within twenty days for the stanhope and within sixty days for any other model. It is probable that only the stanhope was actually being manufactured at that time, if production had actually been initiated at all.

A Twyford stanhope was pictured in the April 1902 issue of *Cycle & Automobile Trade Journal*. The firm was at that time located at 198 Everett Street, Pittsburgh. The photograph of the Twyford stanhope lacks sufficient detail to determine how closely it was related to Twyford's patent. It would appear that there is a small gasoline engine under the seat and that the drive train had been somewhat simplified. According to the *Horseless Age of 17* September 1902 the firm had moved to 5920 Penn Avenue in Pittsburgh. Robert Twyford, who was engineer of the firm and J.F. Trembly, who was manager, "had in hand a new gasoline automobile which they expect to finish soon." Despite this indication that the Twyford motor car was still very much in the experimental stage, plans for the construction of a large factory were mentioned.



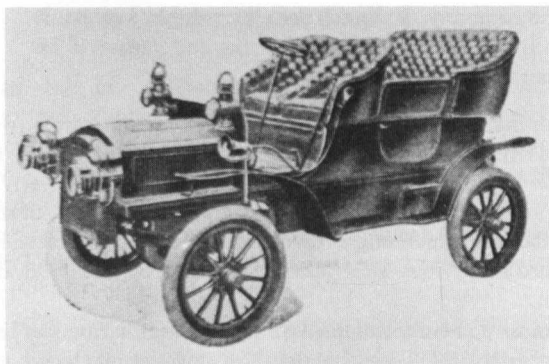
The Twyford factory in South Brookville. Despite the unkempt surroundings, the factory is in active use with workmen visible at second floor windows. Photo probably taken in late spring 1905.

(Courtesy of Arthur Altman)

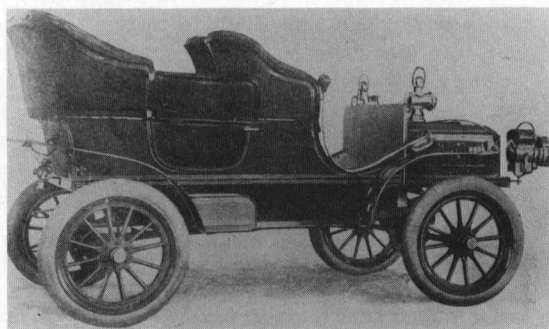
Despite this apparent evidence of progress during 1902, efforts to manufacture the Twyford motor car in Pittsburgh were apparently abandoned before the end of 1902. Nothing further is known of Robert Twyford's activities until July 1904, when he found new backers in Brookville, Pennsylvania, a town of 2,470 inhabitants about 55 miles northeast of Pittsburgh. Arrangements to manufacture the Twyford were announced in the Brookville Jeffersonian Democrat, which stated:

The ambitious citizens of Brookville are anxiously, but hopefully, looking forward to the time when they can all ride in a Twyford automobile made at home and beat the world for speed and endurance, in which hope we join.

The firm was reorganized under Delaware Corporate law as the Twyford Motorcar Company with capital stock of \$500,000, of which \$200,000 was offered for sale at \$50 per share. Officers of the firm were William N. Humphrey, president; Walter Richards, vice president; and J.M. Humphrey, secretary-treasurer. Directors, in addition to the officers, were W.I. Burton, L.A. Leathers, and Robert E. Twyford. The Humphreys were brick manufacturers, Richards was a hardware dealer, and Burton and Leathers were dry goods merchants. Robert Twyford was named general manager of the firm. Construction of an automobile factory in South Brookville was started in July 1904 and by late September the building was finished except for the installation of machinery. The two-story building was of brick and timber and measured 200 x 50 feet. The building of the first motor cars in the new factory began in late 1904.



In the 1906 MoToR Annual, what appears to be a very similar car was described as Model C, price \$1,400, 15 hp. The small cut does however show steering wheel and control levers as well as an apparent enclosure of the front-wheel drive and steering mechanism. The transmission type was described as "non-sliding".



The 1905 Twyford Type A tonneau. While the bevel gears on the front and rear axles can be seen, the absence of a steering wheel and column, indeed even levers and pedals, is unexplained.

(Keith Marvin collection)

Twyford models for 1905, announced in January of that year, included an 18hp 4-passenger tonneau called the "Type A," priced at \$2,700; an 8hp delivery truck priced at \$1,000; an 8hp runabout; a 10hp stanhope; and a 10hp roadster. All models were powered by a two-cylinder two-cycle water-cooled engine presumably designed by Mr. Twyford. This two-cycle engine was presumably used in earlier Twyford motor cars built in Pittsburgh.

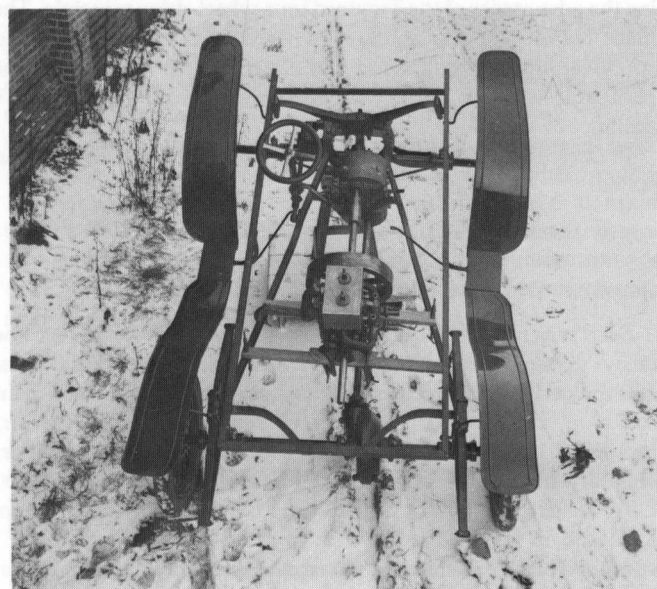
The first two Brookville-built Twyford motor cars were completed in time to be exhibited at the Automobile Show in Buffalo, New York, in March 1905. A Twyford chassis was also displayed. Robert Twyford and C.A. French, who accompanied the cars to the show, secured orders for several vehicles. J.M. Vadahin, manager of the Adams Express Company in Buffalo, stated that he planned to purchase several Twyford trucks as soon as they became available. Others who expressed an interest in the Twyford included Henry A. Kamman, a beef and pork packer; H.C. Gardner, a milk dealer; and Charles Heidrich, Superintendent of the Pittsburgh, Summersville, and Clarion Railroad.

Following the show in Buffalo, the motor cars were shipped to Washinton, D.C. At the automobile show there, Mr. Twyford booked several more orders and later said that he had been forced to turn down orders for about one hundred additional vehicles because of the limited production capacity of the Brookville factory. The success of the public displays of the Twyford encouraged the Board of Directors to consider the construction of an addition to double the size of the factory and to revive the campaign to sell Twyford stock. Results of the stock sale campaign are unknown; it is certain, however, that no factory addition was constructed.

On May 12, 1905, when a reporter from the *Jeffersonian Democrat* visited the Twyford factory, he found fifteen employees hard at work and several motor cars in various stages of construction. All parts for Twyford vehicles except wheels, tires, and lamps, were made in the factory. Robert Twyford supervised the engine and chassis shop, assisted by C.A. French. Ralph Reitz was foreman of the body building shop, where the wooden bodies were made. Robert Twyford had "one of his old cars," presumably one built in Pittsburgh, repaired and repainted in the shop and began commuting to work in it in late May.

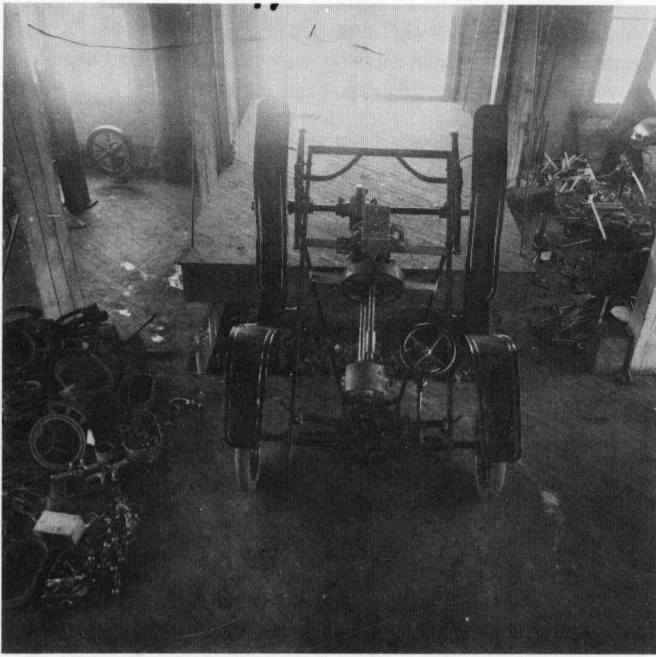
On June 12, 1905, Robert Twyford gave a well publicized demonstration of the pulling power of a new 10hp Twyford stanhope on Main Street in Brookville. First he had the rear wheels of the vehicle blocked up with casters fixed to a wooden frame and drove the car along the street with power to the front wheels only. Then, with all four wheels back on the ground, he towed two carriages carrying five passengers each up a 14.5 per cent grade and followed that by towing eight carriages carrying five passengers each from a standing start in high gear. The performance was said to have greatly impressed the citizens of Brookville who witnessed it. It might be noted, however, that the Twyford stanhope used in the demonstration had been specially prepared; it had been geared down for maximum pulling power rather than high speed (top speed was 9 mph) and was driven by Robert Twyford, who was likely to achieve a more satisfactory performance with his vehicle than any other driver could.

Three or four Twyfords were shown at the Brookville Fair in September 1905, where they were credited by the local newspaper with being "the finest exhibit on the fair grounds outside of the livestock." A Twyford Type A touring car was sold during the fair; virtually the only known sale of a Twyford motor car.



A similar chassis viewed from the rear end. The gear case shows more clearly here and the method of attaching the center-pivot front axle to the frame by an inverted transverse leaf spring is visible.

(Courtesy Arthur Altman)



A Twyford chassis in the factory, probably from early 1905. This very light chassis, presumably that of a Twyford Stanhope, has lefthand steering. For photo-taking purposes, the engine is supported by two pieces of lumber fixed to the frame with C-clamps. The factory floor, with parts scattered in random piles, gives a clear indication of the primitive conditions in which the Twyford car was made. Several of the fifth-wheel gears for the front axle steering mechanism are visible to the left of the chassis. (Courtesy Arthur Altman)

For the 1905 season the Twyford Motorcar Company announced the Type B tonneau, a 20hp motor car with 4-passenger body on an 87 inch wheelbase. It was priced at \$1,800, which was \$900 less than the Type A. The Type F delivery wagon, priced at \$1,500, had a 104 inch wheelbase and was of 1500 pound carrying capacity. The new vehicles were similar except for the length of wheelbase, type of body fitted, and engine rating — the two-cylinder two-cycle Twyford engine was rated at 20hp in the tonneau and at 16hp in the delivery wagon. The firm issued its first and only catalog in January 1906. This catalog, a 12 page pamphlet which measured 5½ x 7 inches, was primarily a monograph extolling the advantages of the Twyford four-wheel-drive principle. The main features of the automobile were given without detailed specifications and the catalog was illustrated with four half-tone photographs taken during the demonstration of the Twyford's pulling power in June 1905.

In December 1905 a brief newspaper article on the company had stated:

If the business is properly pushed the 'Twyford' company ought to sell cars enough to afford employment to 600 men by the close of 1906.

Such was not to be the case, however, for by March 1906 the delays in correcting the Twyford vehicle's mechanical deficiencies and the decline in the company's assets resulted in a management shake-up. The new management included Alexander D. Deemer, president; William N. Humphrey, vice president; D.L. Taylor, secretary-treasurer; and Herman C. Beach, William N. Van Leer, C.A. French, William D. Shields, and Edward A. Carnalt, directors. Robert Twyford retained his position as general manager.

A Twyford chassis was exhibited in the Empire Building in Pittsburgh in mid-March. An article in the 22 March 1906 issue of *The Automobile* noted this exhibit and indicated that the company was offering eight different styles of Twyford motor cars, delivery wagons, and buses, that the firm had a paid-in capital of \$500,000,

and that the factory was turning out six vehicles per week. In fact, production of Twyford vehicles in Brookville to that date probably totaled fewer than ten machines.

It was not until July 1906 that the *Jeffersonian Democrat* admitted that the firm had not been as successful as expected. By that time Robert Twyford had resigned from the firm and his holdings in the company had been reduced from 51 per cent to 10 per cent of outstanding stock. The new management announced plans to pay the company's debts and continue the business on a sound basis. After two years of praise for the Twyford four-wheel-drive principle, the newspaper stated:

The purpose is to construct automobiles, and if the Twyford machine can't be perfected to the satisfaction of the board of directors, another machine will be made. The intention is to increase the capital of the company, and push the enterprise to success. It is to be earnestly hoped that the company will be more successful henceforth.

With that, the story of the Twyford Motorcar Company disappeared from the pages of the local newspaper. An article on the industries of Brookville, published in the newspaper in early 1907, made no mention of the Twyford company or of any automobile manufacturer which might have been a successor concern. Robert Twyford's activities after leaving the firm in mid-1906 are not known.

Ironically, a complete line of Twyford motor cars was listed in the February 1907 issue of *MoToR*. Models included a 15hp roadster, a 15hp stanhope, a 15hp delivery wagon, and a 35hp touring car with a four-cylinder engine. Since no Twyfords were built in 1907, this line of vehicles must represent wishful thinking by the firm's last management group.

The Twyford Motorcar Company never passed from the experimental stage of development; the firm made a variety of models instead of standardizing on one proven model and initiating quantity production. It is likely, however, that nothing could have saved the firm from a failure resulting from the inherent crudeness of Twyford's four-wheel-drive design. Certainly the effort to start a new manufacturing concern with a vehicle which featured an untried four-wheel-drive design and an experimental two-cycle engine was far more risky than those involved in the Twyford company realized until events had gone too far to permit any turning back.

The Twyford factory was occupied from about 1910 until the late 1920's by the Union Auto Specialties Company, and was then known popularly as the windshield factory. Following that firm's closing the building stood empty. It was finally torn down about 1970 after being declared a fire and health hazard. None of the limited number of Twyford vehicles made there are known to have survived and been restored.

ACKNOWLEDGEMENTS

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Donald J. Summar

The Packard Electric Company of St. Catharines, Ontario

by Robert E. Ankli
and
Fred Frederiksen

University of Guelph

A good deal of confusion has been generated regarding the automotive activities of the Packard Electric Company in St. Catharines, Ontario. Some rather fantastic stories have been printed about this firm, including one which claimed that the first Packard automobile was built in St. Catharines! In fact, no Packard automobiles were ever built by the Packard Electric Company in Canada, but other automobiles were, so the story is worth telling.

The Packard family was financially solid. Warren Packard, the father, owned several saw mills spread throughout Ohio, Pennsylvania, and New York which supplied bridge timbers to the Erie Railroad. Other business interests included a hardware store, a steel mill, a small railroad and a summer resort hotel.¹

William Doud Packard, the older brother, was born on November 3, 1861. He attended Ohio State University and quickly became involved in his father's business interests. Two years were spent in New York City with the Sawyer-Mann Electric Co., following which he returned to Warren, Ohio and established the Packard Electric Co., with his brother J.W. in 1890. Incandescent lamps were made by a subsidiary, the New York & Ohio Co. Though little emphasis has been placed on W.D.'s career, he did devise several electrical devices which received patents. He passed away on November 11, 1923. His son, Warren Packard II, was the advertising and sales promotion manager for the Packard Motor Car Co.²

James Ward Packard, the better known of the brothers was born on November 5, 1863. J.W. had a distinct interest in mechanics and graduated from Lehigh University in 1884 as a mechanical engineer. He worked at Sawyer-Mann with his brother, eventually becoming the superintendent of the lamp manufacturing department. The two brothers formed the Packard Electric Company of Warren, Ohio in 1890. The Packard Electric Company was based on J.W.'s inventiveness (he eventually held better than 40 patents in the electrical field). The company manufactured an improved incandescent lamp, transformers, fuse boxes, measuring instruments, and cables. The lamp division was apparently sold to General Electric after 1903. G.E. eventually absorbed many of its competitors.³ The electrical industry was experiencing rapid progression of technology at the turn of the century and stability was achieved with the formation of the National Electrical Lamp Association which managed patent matters. The Packard Electric Company was certainly in good shape with a long list of patents (originating with the brothers) among its assets. It still survives today as part of General Motors Corp.

The Packard brothers had a clear interest in automobiles by the mid-nineties as J.W. noted a \$2 subscription to *Horseless Age* in his diary of 1896. On the 15th of January in that year, he "...went to

New Brighton, Pennsylvania, and examined Dr. Booth's motor carriage at the works of Pierce Crouch Engine Company. As early as 1893 J.W. "... with his brother, William Doud Packard... had been working up drawings for a 'horseless carriage' in the office of his electrical equipment plant at Warren (Ohio)... The project was dropped when the industrial depression of '93 struck." According to Warren Packard II, Charles Brady King, an early Detroit pioneer with engines and automobiles, was to supply a gasoline engine to J.W. in 1896 for automotive experiments. "But a financial depression made it unwise to go ahead with plans at that time."⁴

A visit to Cleveland on June 22, 1898 led to the trial of a single cylinder Winton motor carriage. J.W. was favourably impressed feeling it was well worth the \$1,000 asking price. He ordered one on July 6. The trials and tribulations of ownership are well documented in his diaries. He found several ways to improve the Winton product, but Winton was not receptive to these ideas. Winton's negative attitude inspired Packard to make his own attempt at automobile manufacturing. He was aided by two former Winton men, George L. Weiss (an organizer of the Winton firm) and W.A. Hatcher (shop superintendent).

The Packard prototype, built by Weiss, ran on November 6, 1899, on the streets of Warren, Ohio. Apparently Weiss and the Packards entered into a formal partnership on December 31, 1899. The following Wednesday, January 3, the car was sold to George D. Kirkham who paid \$1,250 for it. The partnership was dissolved in September, replaced by the Ohio Automobile Company with five incorporators including the Packard brothers, Weiss, and Hatcher. An advanced feature of the new car was automatic spark advance. This was one of the few Packards to have tiller steering-wheel steering was a notable Packard feature just after the turn of the century. The engine was a single cylinder 12 H.P. motor.

The Packard Automobile story shifted quite soon to Michigan. Henry Bourne Joy was one of three sons of the wealthy lawyer and politician, James F. Joy of Michigan. Henry purchased the only new Packard available in New York in 1901 for \$1,200⁵. He was sufficiently impressed with his first motor car that he visited the Packards and began a long business relationship with them. Joy secured \$250,000 capital from friends and family for the company in 1902 which then became the Packard Motor Car Co.⁶

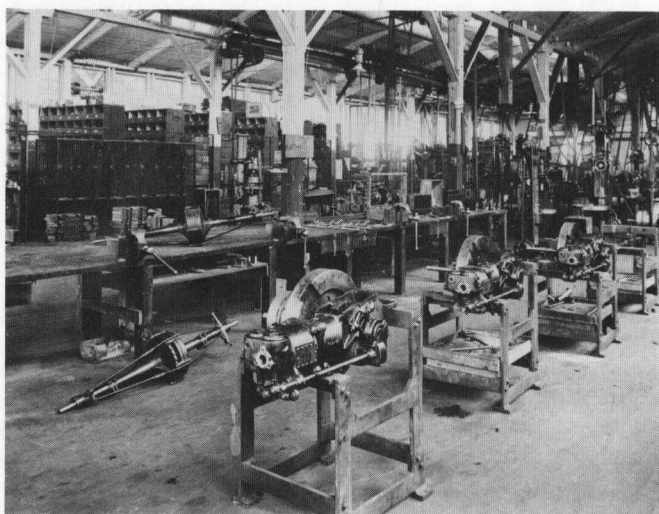
With this brief description of the American end of the business, we shift our attention to Canada. The Packard Electric Company of St. Catharines, Ontario, was formed in 1894 by the amalgamation of the Packard Lamp Company and the Dominion Electric Company of Montreal.⁷ Production of electrical equipment began in a stone grist mill (the old Neelon Mill) which had been built in 1882 on Race Street in St. Catharines. The building was alongside the old Welland Ship Canal thereby offering cheap water transportation and power through a water wheel. Offices were on a property at the intersection of Bond and Geneva streets, a short distance from the mill.⁸

Our knowledge of this Canadian firm is less than it might be, as we are dependent upon J.W. Packard's diary for most of our information. By 1896, trouble existed between J.H. Howry, the first president of the Canadian company, and the brothers. By October they wanted the Howry interests removed. Back in August an entry had referred to an effort to get the St. Catharines operation "on its feet", implying it was on weak financial ground at the time.⁹

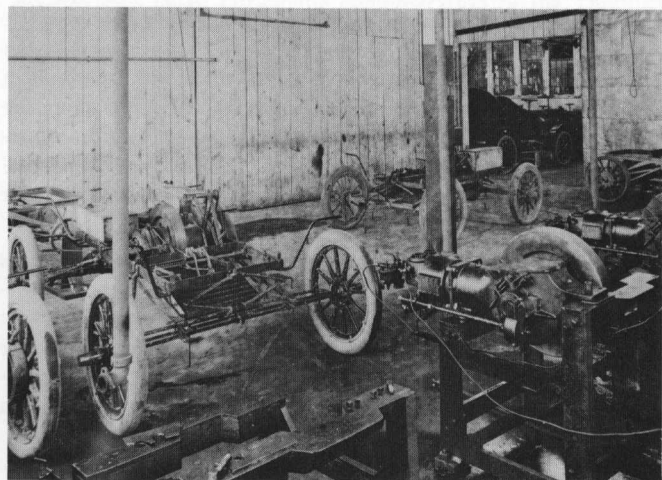
The struggle with the Howry interests continued into November when a shareholders meeting was called to formally "remove Howrys for cause." The Howrys' resignations were accepted on November 21. The new directors elected at the meeting were George B. Marty and a Mr. McCarron.



The factory buildings of the Motor Car Dept. of The Packard Electric Co., Ltd. in St. Catharines, Ontario in 1905 or 1906. In the left foreground is a completed Oldsmobile produced in this plant, while behind it are seven others in various stages of completion. The car at the right does not appear to be an Oldsmobile of any known variety. Photo from the Flummerfelt Collection, St. Catharines Historical Museum.



Engine testing room where the engines appear to have been run while attached to the assembly stand and then installed in the chassis in the same room. The complete chassis with engine appears to be that of a runabout rather than a tonneau. Photo from the Flummerfelt Collection, St. Catharines Historical Museum.



Inside the machine shop, Packard Electric Co., Ltd., Motor Car Dept. In the background can be seen some of the machine tools mentioned in the text. Assembled one-cylinder engines are in the foreground on heavy iron test stands. Photo from the Flummerfelt Collection, St. Catharines Historical Museum.

St. Catharines Directories were scarce for this period, but the 1895 *Farmers and Business Directory* does list Mr. M.J. McCarron. It seems likely this is our man since he was a "barrister, solicitor, proctor, etc." and a suitable choice for the board of directors.¹⁰ Apparently Messrs. Cary (see below) and Marty were from out-of-town, as they are not listed in the 1895 directory (the earliest subsequent directory available is for the early 1900's).

After this, things began to improve for Packard Electric. The annual meeting on June 23, 1898 reported semi-annual earnings of \$6,800, an amount with which the Packards were satisfied. The firm was being run by a Mr. Cary who was "doing big business but apparently mixed in his accounts".¹¹ Most shocking, therefore, is that Cary was given an option on the company shares held by the brothers, at 15 cents on the dollar. It appears that he exercised the option on June 25. Secretary's minutes for the company show that the Packards finished their terms as directors on July 27, 1899.¹² Only four days later George Weiss visited the Packard brothers in Warren to discuss manufacturing motor carriages, and they decided that \$3 million could be made available for the venture.¹³

If the St. Catharines plant was making an acceptable profit, it is hard to understand why the Packards sold out so cheaply, especially since money does not seem to have been a problem. Perhaps some flavour of their decision-making comes to us from Warren Packard II, who commented that, with regard to financing Packard projects, "the banks would lend a limited amount of money to the Packard brothers for their lamp business, but they looked askance at the automobile end of the business".¹⁴ If this were the situation in the United States, it can be expected that funding would have been even more difficult in Canada for the St. Catharines operation. The volatile technological progress in the electrical trade must have spelt risk to the banks, and automobiles were even more poorly understood. The brothers never appeared to be on the brink of financial disaster, so their insistence on borrowing to underwrite business development must have been based on other reasons which have become lost in time. The brothers apparently wished to keep each business enterprise entirely separate, except, of course, when they first invested in the automobile company.

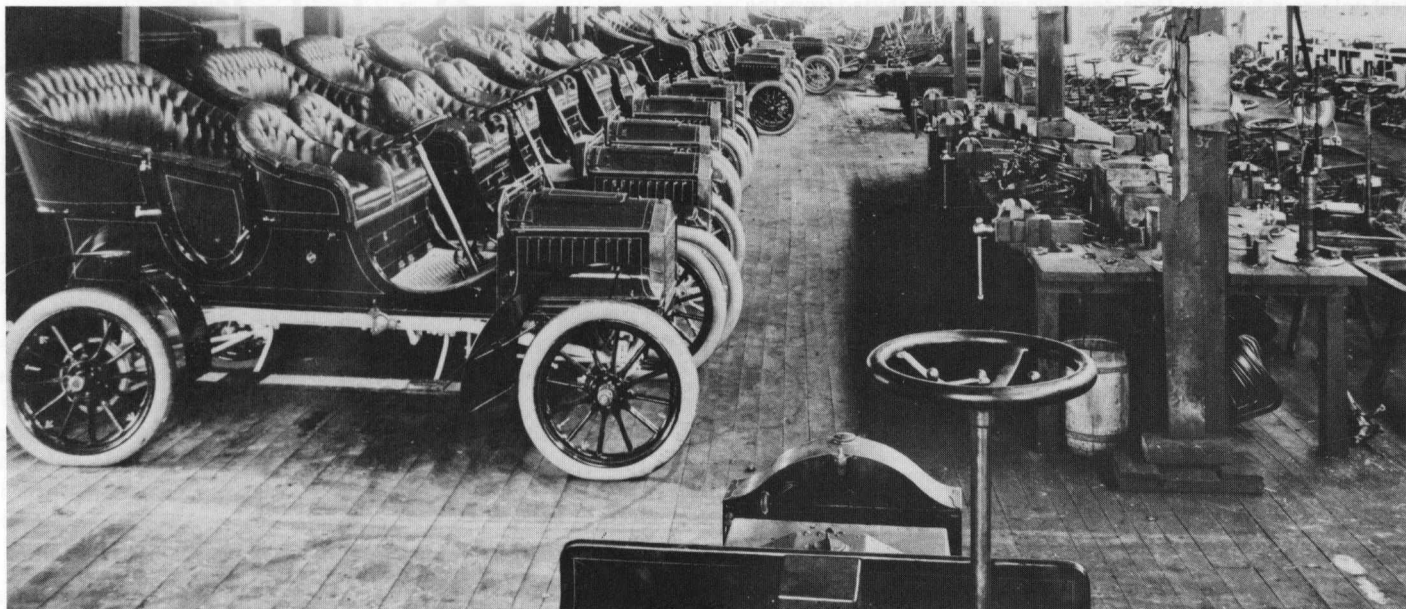
Since the Packards did not begin to make an automobile until after they removed themselves from the Canadian business, no Packard automobile was ever produced by the Packard Electric Co. in Canada. The Packard Electric Co. in St. Catharines has survived into the 1980's as part of the international Ferranti-Packard organization. They maintain a large plant in north St. Catharines devoted to electrical apparatus manufacturing.

It is unclear as to why a St. Catharines reporter claimed in 1954 that "... the Packard brothers...constructed their first horseless carriages in this city".¹⁵ The Packard Electric Co. Automobile Department does hold the distinction of being the first fully equipped Canadian automobile factory.

This was in 1905 and the autos built were Oldsmobiles, not Packards. As noted previously, the evidence shows conclusively that the first Packard automobiles were built in Ohio in 1899 and were being built in Detroit well before 1905.

The manufacture of Oldsmobiles by Packard Electric in St. Catharines was covered in great detail by an article in the trade journal, *Canadian Machinery* in 1905:¹⁶

"This is the first plant in Canada to be built and designed for the manufacture of automobiles... The main feature of interest centering about this department is the machine shop, in which are found of the newest and best designs of machine tools in their particular line; in fact when the installation was made three-quarters of these tools were the first of their kind in Canada, and in nearly all cases they are special tools bought solely for the special work to be demanded of them.



Completed Oldsmobiles in the Packard Electric Co., Ltd. plant. Were these Canadian Oldsmobiles identical to the U.S. models? These tourings look like the U.S. Model G of 1905 except that the radiator appears to be the shorter style used on the runabouts, which had one cylinder instead of the two of the 'G'. Only one cylinder engines appear in these photos. Did this company begin the practice of producing Canadian variants from mixtures of U.S. components that the big three continued almost to the present? Photo from The Flummerfelt Collection, St. Catharines Historical Museum.

The comprehensive array of equipment included: three Cincinnati milling machines; a Lodge & Shipley tool room lathe; a LeBlond Lathe; a Washburn drill grinder; a Gould & Eberhart shaper; a Fellows shaper and others. The tools were belt-driven from line shafting powered by an electric motor of 35 H.P. Electricity was produced by a Crocker-Wheeler generator.¹⁷ The article goes on to describe the machining stages of a cylinder casting. Castings were not made in the plant (there is no mention of foundry work) and possibly these were supplied by the Olds Motor Works, Lansing, Michigan.

The manufacture of Oldsmobiles continued until the end of the 1907 season. *Canadian Machinery* announced in the February 1908 issue that the Packard Electric Co. had stopped automobile production and that Oldsmobiles would henceforth be made at Toronto by the 'Olds Mobile Co.' (sic).¹⁸ The reasons for discontinuing production in St. Catharines were presented in a letter from Packard Electric to the journal a month later. The American Oldsmobile had become too large and expensive to be successful in Canada. The Toronto operation referred to functioned only as a dealer for imported Olds products and the make was not made again in Canada until 1920.

This marked the end of the Oldsmobile period for Packard Electric, and the plant of the automobile division remained inactive until 1909.

Records of the Packard Electric Co. show that on January 16, 1909, the automobile department was apparently sold to the Reo Motor Car Company of Lansing, Michigan.¹⁹ This company had been formed by Ransom E. Olds in 1904 after his departure from the Olds Motor Works. The old plant went back into production around April after having been closed "owing to trade depression".²⁰

The Canadian branch of Reo started out as the Reo Automobile Co. Ltd., formed on December 10, 1908 in Windsor, Ontario. The parent organization held 3,995 of the 4,000 \$10 par shares. The move to St. Catharines became official on January 23, 1909 when the company's name was changed to the Reo Motor Car Co. of Canada Ltd. Capital stock was increased fivefold. \$99,500 worth of stock (at par) was issued to Packard Electric in exchange for their complete automobile plant and a lump sum of \$10,000.²¹

Manufacturing continued much as it had before. Reo advertisements made no reference to Packard Electric, discounting no-

tions that it (PE) was building cars for Reo. Business was booming and a doubling of plant capacity was accomplished in late summer of 1912, from 600 to 1,200 per annum.²²

A major promotional event for the Canadian branch of Reo was a coast-to-coast drive by the Englishman Thomas W. Wilby in 1912. Wilby published a book about the expedition, *A Motor Tour Through Canada* in 1914.

Reo followed the tradition set by Packard Electric in making extensive use of machine tools, since these were part of the plant as purchased. Components were fairly standardized and one example of this is the use of carriage bolts with standard thread which could be found in any hardware store. Some of the machinists employed at the Reo factory later joined the McKinnon Dash and Metal Works Ltd., of St. Catharines, eventually a part of the General Motors Corporation Canadian branch. Production ended in 1913 and at this time many tools and pieces of equipment were simply abandoned. Reportedly one former company man outfitted his own homme garage as a complete machine shop.⁴¹

Packard Electric employed about fifty people in 1909. Electrical equipment was assembled from scratch by the same employee. The work week was 60 hours long. Toolmakers earned 27½ cents per hour and the general starting rate was 15¢.⁴²

Reo production stopped in 1913 for St. Catharines for at least two reasons. Production costs had become prohibitive, possibly since competition was becoming fierce in this period (Ford had just debugged his moving assembly lines in Michigan). The other reason was an attempt to save on weight by using a pressed fibre body, supplied by the Chatham Carriage Co. Sadly this scheme turned into a nightmare as the panels could not be completely weatherproofed and moisture quickly caused distortion, and eventual disintegration.²⁵ The end of production was followed by the opening of a sales office in St. Catharines to handle Reo distribution for Canada. This organization also reportedly established the first public garage in the city.²⁶

The parent plant in Michigan stopped auto production in 1914 to build military trucks for the Canadian government.²⁷ The St. Catharines plant was activated again in 1915 to produce shrapnel shells.²⁸ Reo's Canadian head offices were moved to Windsor in 1922 and later to Toronto (Leaside).²⁹

In conclusion, the Packard brothers are an interesting example of entrepreneurs who held a distinct preference for high

technology industries. Their domestic enterprises shifted from the electrical trade to automobiles and (to some extent) back again. They were rare in being able to survive financially in two young and rapidly changing industries.

Their Canadian experience seems to be limited to the establishing of Packard Electric in St. Catharines. This venture was sold off before they became active in the U.S. auto trade and it is an irony that Packard Electric in St. Catharines never built a Packard automobile.

The auto department of Packard Electric in St. Catharines demonstrated rather neatly how a model operation could go sour. The level of technology was high, the dependence on outside sources apparently low, yet the domestic market (in Canada) did not permit profitable or competitive manufacturing. The early years of the industry in Canada were particularly unstable (witness Packard Electric's opinion that Oldsmobiles could not profitably be made for 1908 followed almost immediately by the construction of a plant for Oldsmobiles in Toronto). Technology was clearly not an obstruction to auto make in Canada.

Packard Electric showed that auto making was feasible (though not necessarily profitable) in Canada in the period 1905-1913. Their experience in automobile manufacturing suggests that we must look to elements other than technology to determine why the Canadian industry assumed the character that it did.

¹Warren Packard II inn memorandum to H.F. Olmstead on biography of James W. Packard, duplicated copy, Detroit Public Library, *Automotive History Section*, p.1.

²The National Cyclopaedia of American Biography. Entries under "Packard, William Doud", and "Packard, James Ward", vol. 00, pp. 14-16.

³Warren Packard II, *Memo*, p.2

⁴Warren Packard, *Memo*, p.2; The Dictionary of American Biography, vol. VII, p. 128, concerns with this and also suggests that he bought a French De-Dion Bouton motor tricycle between 1891 and 1893.

⁵A.H. Allen, "Motors, Machines, Men, and Millions," *Steel*, May 9, 1949.

⁶Ibid., p.3.

⁷Ed Love, "Ferranti-Packard, Canada", p.3, also Fred Kingsley, "From Light Bulbs and Autos", *St. Catharines Standard*, March 3, 1954.

⁸Ibid.

⁹J.W. Packard, *Personal Diary*, entry for January 15 and entry for August 15, 1896.

¹⁰The Union Publishing Co. *Farmers and Business Directory for the Countries of Halimand, Halton, Lincoln, Welland, and Wentworth, 1895*, vol. 8, *Ingersoll (Ont.): Union Publishing Co., 1895*, pp. 102, 197.

¹¹J.W. Packard, *Diary*, January 21, 1899.

¹²J.E. West to Miss Maud Payne at the Detroit Public Library, *Automotive History collection*, letter dated April 9, 1956.

¹³J.W. Packard, *Diary*, entry for July 31, 1899.

¹⁴"James Ward Packard, ME, '84, Creator of Packard Automobile, Donor of Lehigh's New Electrical and Mechanical Engineering Laboratory", in *Lehigh Alumni Bulletin*, vol. 14, no. 4 (January 1927), p.10.

¹⁵Fred Kingsley, "From Light Bulbs and Autos," in *The St. Catharines Standard*, March 3, 1954

¹⁶"Modern Manufacturing Plants," in *Canadian Machinery*, December 1905, p. 457.

¹⁷Ibid., p. 460.

¹⁸Item, *Canadian Machinery*, February 1908, p. 58.

¹⁹J.E. West personal correspondence to Miss Maud Payne, dated April 9, 1956.

²⁰*Canadian Machinery*, April 1909, p. 72.

²¹Glenn A. Neimeyer, *The Automotive Career of Ransom E. Olds, East Lansing: Michigan State Business Studies*, 1963, p. 102.

²²*Canadian Machinery*, May 1912, p. 73.

²³Personal interview with F.S. Pattison, May 10, 1978. This conflicts with Neimeyer's version, where Reo produced until 1915 when they turned to munitions contracts. Other Canadian sources make it seem unlikely that production continued after 1913. See Neimeyer, *Career of R.E. Olds*, p. 102.

²⁴Kingsley, "From Light Bulbs," *St. Catharines Standard*, March 3, 1954.

²⁵Durnford and Baechler, *Cars of Canada*, p. 248.

²⁶Hewitt, "In the Heyday," *St. Catharines Standard*, March 25, 1965.

²⁷Ibid.

²⁸*Canadian Machinery*, January 21, 1915, p. 63.

²⁹The *St. Catharine Centennial Book*, p. 60; see also Durnford and Baechler, *Cars of Canada*, p. 248.

Book Talk

Three recent Lancia titles reviewed together by Walter F. Robinson Jr.

LANCIA, by Michael Frostick. Dalton Watson, London, 1976. 208 pp., 370 illustrations, 7 pp. specifications. Hardbound, 7½ x 10; ISBN 0901564222. In U.S. \$24.50 from Motorbooks International, Osceola, WI 54202.

AL LANCIA, by Wim Oude Weernink. Motor Racing Publications, Ltd., London 1979. 303 pp., 498 illustrations, 3 pp. production statistics, 15 pp car plus 2 pp bus and truck specifications, 2 pp competition results. Hardbound 7½ x 10; ISBN 0900549425. In U.S. \$49.95 from Motor books International Osceola, WI 54202

LANCIA: THE SHIELD AND FLAG, by Nigel Trow. David and Charles, London, 1980. 270 pp, 89 illustrations, 89 pp technical descriptions and specifications, 5 pp competition results. Hardbound, 6½ x 9½; ISBN 071537882. In U.S. \$37.95 from Motorbooks International, Osceola, WI 54202.

Nigel Trow sets the tone of these three books in the opening sentence of his introduction; "Engineering without art is a dead language." These are books by enthusiasts of the make. The need is reflected by the absence of any prior books on Lancia in the select bibliography in Trow's book, the only one with this desirable feature. All of them concentrate on the vehicles. The history of Lancia as an economic organism is yet to be written.

Instead of a surfeit one is left hoping for more. Frostick's book is in the Dalton Watson form at with short captions for the many illustrations and a modest amount of text. Within a limited objective he has succeeded best. Weernink covers the entire span of the firm with a sixteen page appendix on the trucks and buses for good measure. He also has serial numbers and production figures for both the cars and commercial vehicles. Trow stops his narrative with the Appia and the Flaminia as the fifties merged with the sixties.

It is a matter of taste whether one prefers Weernink's conventionally arranged tabular presentation of specifications which are very detailed or Trow's combination of descriptions of each design and briefer specifications.

Missing in both Weernink and Trow is an analysis of Lancia's most distinctive design features, narrow angle engines and sliding pillar independent front suspension which were used over twenty-five years. Neither feature originated with Lancia but no other maker used them so long. We are left to wonder why these features were used, how effectively, and why they were discontinued.

The pre-Lambda cars receive the least attention. The first six cylinder, the Dialpha, remains mysterious. One wonders if periodic vibration caused its failure. The Eta is an L-head design according to Trow and an OHC one in Weernink's book where he confirms it with an engine drawing.

Trow's prose is more skillful. Weernink's text suffers in places from translation from the Dutch. From context his references to "F-head" must mean a design with non-detachable cylinder head rather than the meaning Americans would give to the term or inlet over exhaust as the British more often say.

All of these books are labors of love but affection has not suppressed analysis. Trow points out that the B20 for all its merit was not perfect and by today's standards not comfortable. Weernink mentions that the Dilambda engine was noisier than average for cars of its class and discusses the weaknesses of the Flavia.

Road test writers have consistently approved the Lancias they reviewed. Trow and Weernink are loyal owners and clearly speak for the great majority. What happened, then, to cause Lancia to lose its independence? Was it mismanagement, or failure of the cars to be competitive? We do not get a clear answer from these

Continued on pg. 14

A Confusion of Falcons

By Keith Marvin

The American automobile industry of the early twenties is one of the more complex and confusing periods of the industry's life, at once a teaser and a challenge to the serious historian attempting to sort out the hundreds of makes and models offered in those days by makers just beginning, others fading away and some enjoying continued success. In spite of this mixture of common corporation offerings and limited production curiosities, dull touring cars for cheap transportation and flashy phaetons for custom built elegance, most of the makes found in the long listings can be accurately checked out with a modicum of research.

An exception to this may be found in the offerings of two makers, Halladay of Newark, Ohio, and Moller of Lewistown, Pa. In the early years of the decade both attempted to change the name of the cars they made to Falcon at the same time. Since neither make was especially well known then, either to the general public or to those who laid out copy for the trade press, their efforts caused considerable confusion in the flesh and in print, with resulting problems for future historians.

Because this confusion has surfaced repeatedly in my own research, I have spent some time in determining the reasons for the mixup. What really was the story behind these contemporary automobiles that appeared in print to be identical but listed under two different makers' names? Was there a connection between the two addresses, and if not, why were there two different Falcon cars being made at the same time?

For readers who do not favor the thrill of the chase here is a brief summary of the answers. First, although there were two separate Falcon automobiles, one probably never proceeded beyond the prototype stage although its name and specifications persisted in printed lists for a time, which is the basis for much of the misunderstanding. Second, there was absolutely no connection between the Ohio and the Pennsylvania companies. Third, since one existed only as a prototype, there really weren't two Falcon cars in production and one actually masqueraded under a different name most of the time. Is there any wonder wires got crossed?

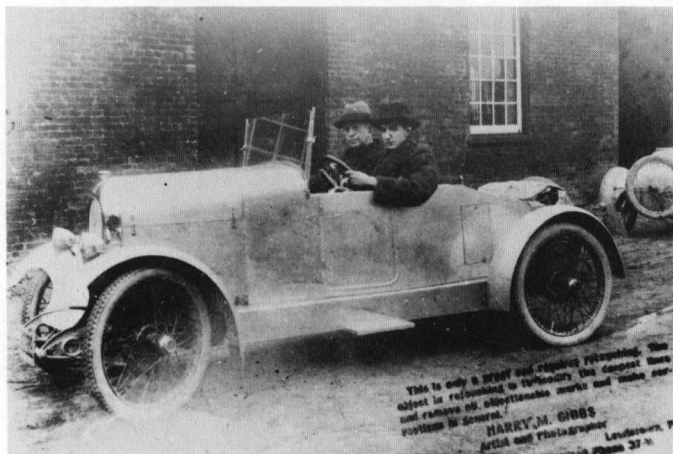
To make sense of the puzzle we must investigate the backgrounds of the two manufacturers. In 1919 two brothers, Holger and Wilhelm Moller, natives of Denmark living in Lewistown, Pa., decided to manufacture a car carrying their

name. They acquired a factory, obtained local backing and completed their first natty little Moller roadster before the beginning of 1920.

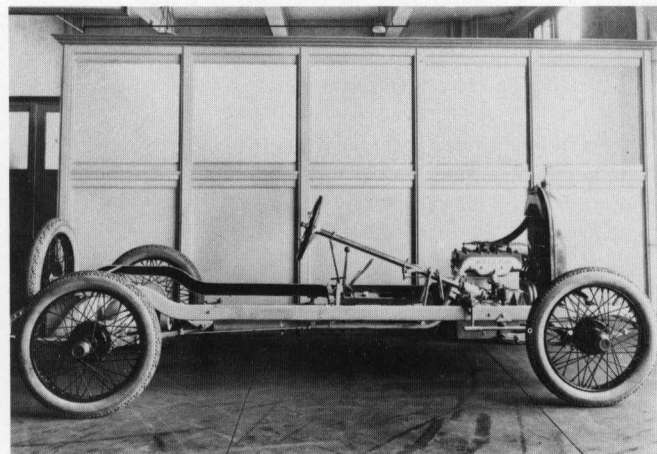
The Mollers retained strong ties with their native country and their car was conceived to appeal strongly to export markets. In concept it was closely related to some of the better light car designs of the pre-war cyclecar era, such as the Car-Nation. In its original form the car boasted an even 100" wheelbase, 50" tread, wire wheels and a four cylinder engine 2½" x 4" bore and stroke of Moller design and manufacture. The weight was given as 1,000 lbs. and price \$1,000, giving the builders a nice advertising gimmick, "1000 pounds of car for \$1000".*¹ Although the earliest photo shows a left hand drive example, right hand drive was available when required. Production was well under way in the spring of 1920 and orders were received from Africa, Australia, Brazil, England, Sweden and Denmark.

Outside the immediate Lewistown area the American public was unaware of the car's existence until January 1920 when it was announced in AUTOMOBILE TRADE JOURNAL. By this time the bore of the engine had been increased to 2¾" and the price of the roadster was upped to \$1,100. A four-passenger model was also noted at \$1,150, although comparatively few of these appear to have been made. The other motor car magazines soon listed the car with generally the same specifications except for the bore which was quoted variously as either 2½" or 2¾". It seems likely that after testing of the car with the original smaller engine, an increase was deemed desirable to add power. The change was soon made and probably carried through all production after the first few examples.

First national exhibition of the Moller was at the New York Automobile Show during the second week of January, 1921.*² In March the Moller was described as weighing only 800 pounds with a whopping \$1,500 price tag for the chassis alone, doubtless a direct result of the ongoing recession of the time.*³ In June a similar account described the car as tipping the scales at 850 lbs.,*⁴ and a month later another confirmed these specifications and cited the additional fact that Associated Motors Corp. of New York City was the "maker".*⁵ Actually this firm was the export representative for the make, as it was for the Sperling and Seneca, had been previously for Piedmont and other firms, and perhaps was handling local distribution of the Moller as well. As a further note, it is likely that the 800 and 850 lb. weight figures referred to the chassis alone, and the high price was reflected in figures quoted in England of £485 for the chassis and £595 for complete car which translate to about \$2,300 and \$2,900 respectively.



One of the original Moller roadsters shown outside the Moller plant in Lewistown. Mr. Holgar Moller, who with his brother Wilhelm founded the company, is the passenger. His mechanical draftsman, Mr. Rof-fensberger, is the driver of this left-hand drive and still unpainted model. Photo from James E. Canfield.



A Moller chassis photographed for publicity purposes. Clearly visible here is the Moller-built engine, the right hand steering gear and the generally well-finished look of all components. Photo from The Automobile Reference Collection, Free Library of Philadelphia.

Late in the year a Moller was entered in the exclusive Salon held at the Hotel Commodore in New York City which was restricted to luxury automobiles and custom coachwork builders both domestic and foreign. In citing that display, the *GLOBE AND COMMERCIAL ADVERTISER* of New York stated, "A new car, the Moller, of domestic manufacture, will make its debut". Note the reference to the Moller name. This is significant because in the official program the car appeared as the Falcon.*⁶ This, then was the first example of the use of dual nomenclature which would foul up historians for the next half century! At least two of the Moller-built cars were displayed at the Salon. One, believed to be the nice looking center-door sedan, shared the stand of Healey & Company, longtime high quality body builders, with a Stevens-Duryea, a Cadillac and a Pierce-Arrow. The other also carried a Healey body, an absurd open touring creating with doors to the front seat but none for the rear, and was displayed by H.P.M. Motors, Inc., which was listed as "Distributors of the Falcon, a High Class Light Car designed and built by the Moller Motor Company". Possibly the third car shown with this article, the runabout, shared this stand. All of these cars were displayed as Falcons. Why the change of name? We really do not know. One possibility to be considered is that the men of H.P.M. conceived the idea of a "High Class Light Car" based on the Moller chassis with custom body work and undertook to promote this, while Moller continued to produce and export cars as usual under its own name. The "High Class Light Car" concept was never a viable position in this country and in fact was the kiss of death for more than one maker, including the Mercury of Hollis, Long Island and the ill-fated Leon Rubay.

Before we continue, it should be noted that there was a confusion of Mollers too. Another native Dane of the same name (but with an umlaut over the 'o' which he retained in preference to the Americanization 'Moeller'), M.P. Moeller, over in Hagerstown, Md., not too far from Lewistown, a manufacturer of pipe organs, was also building a car, the Crawford, on the side. In time he would himself attach a diamond-shaped Moller nameplate to a variety of taxicab.*⁷ Before that, however, the Lewistown Moller enterprise would attempt a move in its final days to Hagerstown, of all places, bringing both Moller operations into close proximity even though there was no corporate or physical connection.

While Moller of Lewistown was attempting to build itself up in the domestic automotive scene, another maker with a history going back to 1905, Halladay Motors Corp. of Newark, Ohio, was attempting to save itself from imminent oblivion. A maker of conventional middle-of-the-market cars, Halladay had not prospered since Albert C. Barley sold the company to a new group of investors after he had developed a new model in 1916, named it the Roamer and spun it off into a new company based in Kalamazoo, Mich. following enticements from that city's Chamber of Commerce.

Financially strapped and unable to come up with new models, Halladay tried to put on a brave face for 1922. Sales in 1921 had amounted to less than one hundred units, but for the new year the company issued a brochure describing new lines under both Halladay and Falcon names. Impoverished as it was Halladay resorted to the use of two pictures copied from the current McFarlan catalogue, heavily retouched, to illustrate the projected Halladays and Falcons. Why the McFarlan, truly a behemoth among automobiles, had been chosen by the failing Newark enterprise as a model can only be conjectured. Possibly it felt that by using a doctored photo of McFarlan's \$6,300 offering as a base, viewers would be willing to believe that Halladay really offered what the advertising said it was, "A Car of Class Built for the Mass", at an asking price of \$1,295.*⁸ Even those who knew nothing of the McFarlan should not have been fooled by this ploy and if Halladay's future is any indication, they weren't.



The Healey-bodied Moller Falcon touring. The unique body with no rear doors caught the eye of several automotive editors who used a different photo of it in various publication, in some cases incorrectly describing it as a Halladay Falcon, thus creating the confusion that is resolved in this story. Photo from Hollger W. Moller (son of Wilhelm) via Stanley B. Smith.



Probably the third Moller Falcon, and probably also a Healey body, although a drawing exists of a quite similar body which was to be built by Smith-Springfield from a LeBaron design. All of these Falcons show right-hand drive. Photo from Holgar W. Moller via Stanley B. Smith.

EXHIBITOR

Healey & Company
NEW YORK CITY and KEYPORT, N. J.

Exhibiting
CUSTOM COACH WORK
on
Pierce Arrow, Stevens-Duryea, Cadillac and
Falcon Chassis

On separate pages of the Salon catalogue Healey and H.P.M. were both listed as exhibitors of Falcon cars.

EXHIBITOR

H. P. M. Motors, Inc.
30 Church Street, New York

Distributors of the "FALCON"
[Designed and Built by the
MOLLER MOTOR COMPANY

In charge of Exhibit
CLARENCE M. HAMILTON
THOMAS H. PIERSON
WILLIAM P. MARSEILLES

At the New York Auto Show in January 1922 Halladay displayed its lone offering, probably under the Falcon insignie. According to Stanley K. Yost, "This Falcon was announced and shown at the New York Show. This car was a much bigger machine than the Moller. It had a California-type top, bevelled glass, square coach-type cowl lamps, squared headlamp lenses, and as far as I could tell, the top of the radiator was wider than the bottom. I am sure that the basic body was identical to the Halladay and I couldn't figure out how they could put this car out at a lower price than the Halladay. From the picture I had, it looked like the car may have been in an out-of-the-way area of the show because there were a lot of different things in the background. You could see no other cars around but there was a wall in the background with pictures on it."⁹

This, then, brought TWO separate Falcons on the automobile market at the same time, Moller's as displayed at the Salon in November 1921, and Halladay's on display at the Grand Central Palace in January 1922. Coincidentally a new piece of Moller literature, probably available at the time of the Salon, carried a reproduction of a new trademark, an emblem carrying both the names "Moller" and "Falcon" and depicting a bird. In this piece as well as in the Salon catalogue the distributor was listed as H.P.M. Motors, Inc., 30 Church St., New York.

We may now conclude that neither the Newark people or the Lewistown people were aware of what the other was doing, or that both knew about each other and simply did not regard the dual use of the name as a problem, or just didn't care.

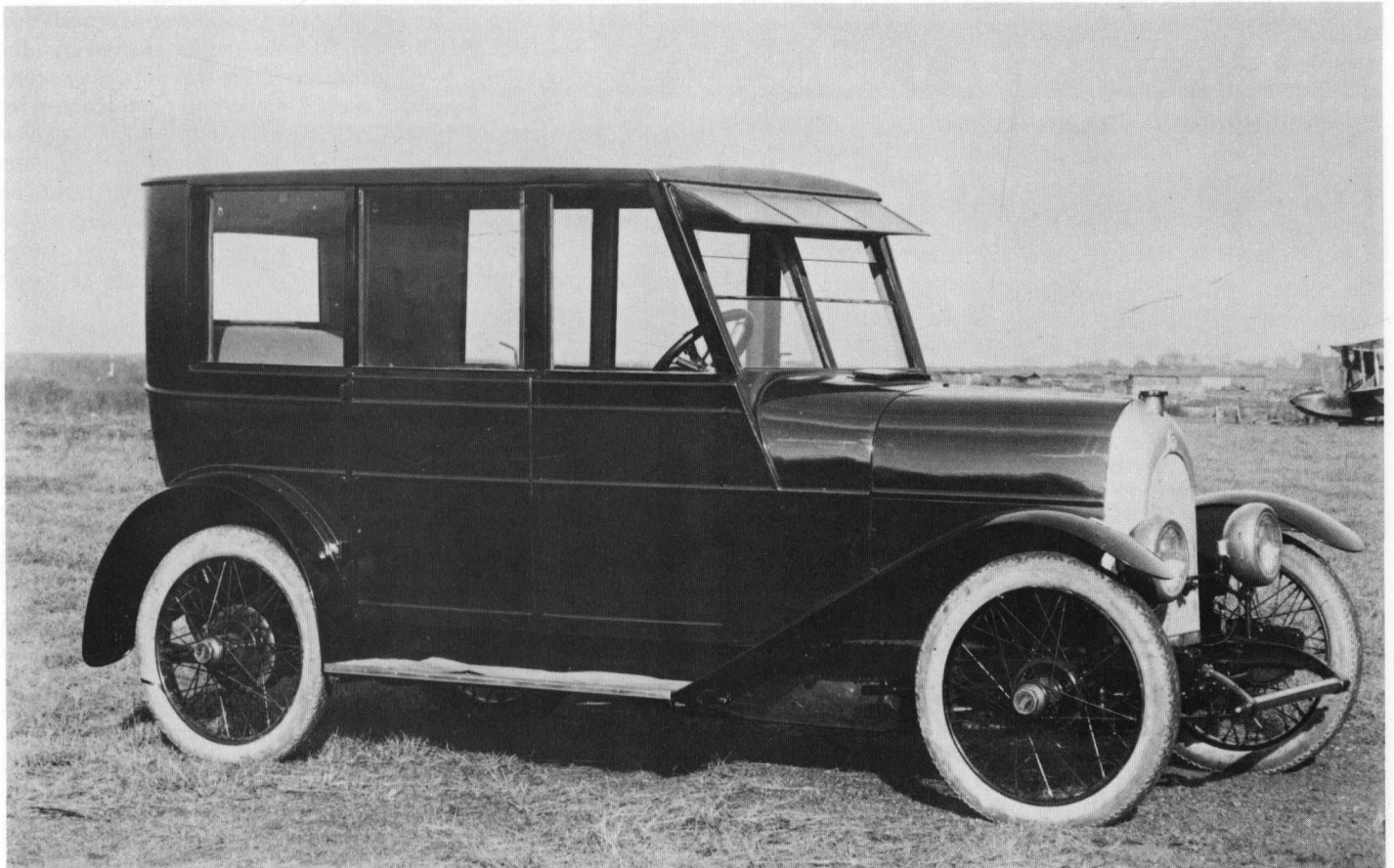
Now let us take a look at the January 1922 number of MoToR, on sale at the time of the show and the most likely automotive magazine to be seen by the general public. Under the table listing the 1922 automobiles, their names and makers, Falcon appears as being a product of Halladay Motors and Moller as a product of the Moller Motor Company. The one car pictured is the handsome

center-door sedan bodied by Healey^{*10} and this is identified by name as a Falcon. There are no pictures of Moller cars as such. In the general specifications section we find three separate lines for Falcon, e.g. Model "A" with 100" wb, 2¾" x 5" bore and stroke respectively. The model "A" details are those of the Moller product, while the two larger models list Halladay "Falcon" specs.

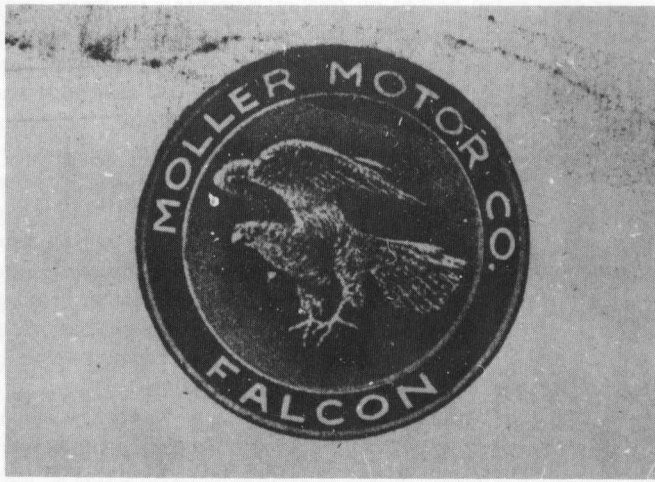
It is now painfully obvious what transpired at MoToR when these specifications were laid out. There were three sets of them, all labeled 'Falcon' and it apparently never occurred to the compiler that these comprised the offerings of two different companies. Since, in the table of makes and their makers, the Halladay was the only one actually claiming the Falcon name, it has pretty much received credit through the years by subsequent references and by well-meaning but misguided historians.

The reader will have noticed by now that no photo of a Halladay Falcon accompanies this narrative, while there are a number of photos of the Moller Falcons obviously taken for publicity purposes. It would appear that Halladay was too poor to have any taken and did not even accompany its publicity releases to the magazines with a copy of the retouched McFarlan photo used in the catalog. With three sets of specifications and only one set of pictures, in hand, the people who laid out the pages of MoToR managed to mix these all up together. And they were not alone; similar things also happened to the Falcon accounts in other places. Thus the foundation for the confusion was laid. As for the Halladay Falcon, the car at the New York show was likely the only one. We have reproduced entries from the 1923 and 1925 issues of Branham's which tell the story. In a short time Halladay went into receivership, ending the existence of itself and the Newark-spawned Falcon forever.^{*11}

Moller continued for a while, although whether the Falcon name was used on all 1922 and 1923 models is uncertain. Some references continue listing the make into 1927, although using the Moller name.^{*12}



The Healey-bodied Moller Falcon center door sedan. The airplane in the background suggests that this photo was taken at Healey's Keyport, N.J. location which they shared with an aircraft manufacturer. Photo from the Automobile Reference Collection, Free Library of Philadelphia.



The Moller Falcon emblem as reproduced in the catalogue.

Modern references continue the confusion. In the A.O. Dunk list published in Glasscock's "The Gasoline Age" in 1937, one of the earliest compilations of makes and addresses, the Falcon is credited only to Halladay in Newark, 1922. Moller, in the same list; "Moller Motor Co., Lewiston (sic), Pa., 1920, M.P. Moller, Hagerstown, Md. 1921. If sales literature had been consulted by the compiler of this list, the Moller entries could have been corrected, as the Hagerstown Mollers always used an umlaut on the 'o' while the Lewistown Mollers did not."¹³

In 1952 John Bentley, in his book ANTIQUE AUTOMOBILES¹⁴ depicted the Healey-bodied Falcon sans rear doors, crediting it to Halladay in Newark while carefully noting its 100" wheelbase and 850 lb. chassis weight, features of the Lewistown product. Later more modern reference books in which the error is perpetuated include G.N. Georgano's THE COMPLETE ENCYCLOPEDIA OF MOTOR CARS and Tad Burness', AMERICAN CAR SPOTTERS GUIDE, 1920-1939.

We may conclude then, that there were some Moller Falcons built, but almost no Halladay Falcons. If only the two companies had been aware of each other or had avoided duplication in their use of the Falcon terminology, they might have made it easier for historians in the years to come.

But it would not have afforded them very much fun either.

¹¹"The Moller Car" by James E. Canfield. ANTIQUE AUTOMOBILE, July-August 1975, p. 29

¹²Ibid. p. 31.

¹³MOTOR WORLD, March 30, 1921, p. 21.

¹⁴AUTOMOTIVE INDUSTRIES, June 30, 1921, pp. 1415-16.

¹⁵MOTOR AGE, July 14, 1921, pp 18-19.

¹⁶Hugo Pfau, letter to this writer July 2, 1972.

¹⁷"The Dagmar and the Moller Motor Car Company: An Automotive Enigma." Arthur Lee Homan and Keith Marvin, p. 65. AUHV 1960.

¹⁸SAH NEWSLETTER, June 1975, pp. 4-5.

¹⁹Stanley K. Yost, letter to the writer March 20, 1980.

²⁰Hugo Pfau, letter, July 2, 1972.

²¹AUTOMOTIVE INDUSTRIES, Mar. 30, 1922, p. 740.

²²AUTOMOBILE REFERENCE MANUAL, October 31, 1927.

²³"THE GASOLINE AGE", by C.B. Glasscock, Bobbs-Merrill, 1937. Reprinted by Floyd Clymer Publications, p. 325.

²⁴"ANTIQUA AUTOMOBILES", by John Bentley. Fawcett Books, 1952, p. 116.

The writer would also like to thank the following sources of information and material above and beyond the foregoing and without whom it would have been most difficult to present the story as written: the late James J. Bradley and the National Automotive History Collection, Detroit Public Library; Louis G. Helverson and the Automobile Reference Collection, Free Library of Philadelphia; James E. Canfield, Ralph Dunwoodie, Peter Helck, Willard J. Prentice, Stanley B. Smith, Stanley K. Yost and Frederick D. Roe.

The Flipper-Roof Thunderbird

By: James F. Petrik

In twenty-five years of Thunderbird history there have been several interesting experimental and special display models, unfortunately NOT for sale. While some of these cars were well-publicized, other models seem to have almost become "classified" information. No publicity was given to them, which seems a great shame.

The tendency of the industry has been to reduce the overall height of cars to achieve a sporty look. Since the Thunderbird has always been a style leader, it has perhaps been even lower in overall height than most other cars, and could be hard to get into and out of for many people. One idea to make entry and exiting easier was to us a "flipper-roof". This consisted of roof panels located above the doors, with the pivot axis longitudinal with the car and parallel with the ground. When a door was opened, the corresponding roof panel would pivot upward, thereby giving more headroom for ease of entering (or exiting from) the car. Closing the door would, as can be expected, lower the roof panel as well.

The first of the Thunderbirds equipped with flipper-roofs was a 1959 model but the device had been shown three years earlier on a Mercury display car, the "XM Turnpike Cruiser." Chrysler engineered it into the Dodge "Flitewing" but this was not until 1961.

The first of the Thunderbirds pictured here is a 1959 model. A close examination of the 1959 Thunderbird photograph shows that it was not intended for publicity purposes, since whitewall tires were not installed, the car had no fender skirts, and the background was not very attractive. There was not even a pretty girl in the scene. Just about every Thunderbird photographed for publicity purposes had at least three of these four items. Another item of interest is that this car has a "Swing-Away" steering wheel (shown swung to the right side). This option was first optional on the 1961 Thunderbird, and standard equipment on the 1962 models. By 1963, this was available for the full-size Ford, and by 1966, back only on the Thunderbird. Apparently this car was a test vehicle experimentally equipped with these features.

The flipper-roof idea resurfaced with the 1964 "Golden Palomino" Thunderbird Landau shown. This car, finished in a metallic gold color, had a chrome tiara over the roof, like that employed on the 1957 thru 1959 Imperials. This tiara did not look too much like the ones employed on the Ford Crown Victorias of 1955 and 1956. As a special touch, this car has the 14-inch wire wheels supplied on 1964 and later Thunderbirds were 15-inch. The 14-inch wire wheels available as an expensive (\$415) accessory were a carry-over from the 1962 and 1963 Sports Roadsters, and were last offered in 1964 as the 1965 models had front disc brakes, which were not compatible with the wire wheels. The Golden Palomino was on display at various dealer showrooms as late as July, 1965, as that is when the writer saw it.

One could surmise that cost, possibility of leakage, and difficulty of keeping the device correctly adjusted prevented this feature from ever being placed on the market. Of course, the public might not have purchased it in any quantity.

With the Federally-mandated and down-sized cars that now fill the financially-depressed showrooms of the country, it is probably safe to say that the next twenty-five years will not see the interesting cars that inspired us during the past twenty five.



1959 Thunderbird with narrow flipper-roof section and "Swing-Away" steering wheel.



1964 Thunderbird "Golden Palomino" show car with flipper roof.

Book Talk Continued...

books. Weernink infers both when he speaks of a loss of customer confidence and a combination of bad management, lack of interest in quality and a wrong model policy. Trow is less explicit but uses a revealing quotation from W. Boddy in *MOTOR SPORT* of November 1957 about Lancia assembly methods and testing of components and cars. He concludes that the level of production could not sustain the number of employees. A contemporary Italian observer, Dante Giacosa, long time chief of design for Fiat, in his *FORTY YEARS OF DESIGN WITH FIAT* gives the choice of models, their excessive weight, and high manufacturing costs as his reasons for Lancia's failure.

The quality and variety of the photographs in the three books is high, with surprisingly little duplication. Both Weernink and Trow have drawings of engines and other components, with Weernink having more. Trow scores in being the only one to supply an index which should not be an optional extra on any book of this kind.

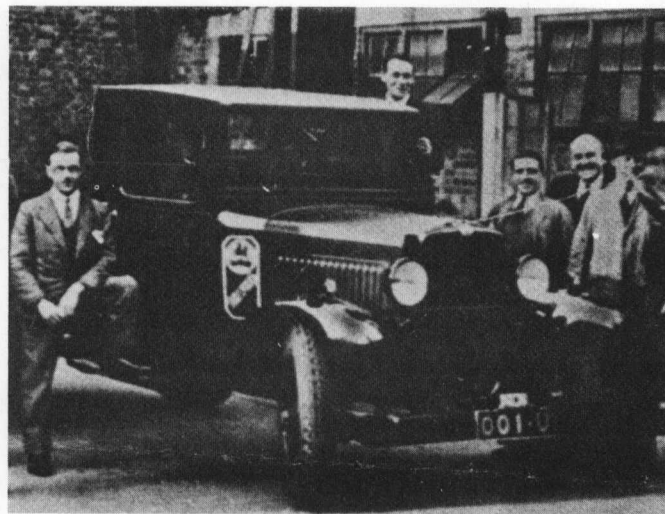
Lancia is a make of technically interesting cars from the beginning and has consistently produced visually attractive cars. For all the reservations expressed above it is good to have a choice of three books on the make and any one of them is well worth having. Serious students of this famous Italian car will want them all. If there is room on the shelf or in the budget for only one, Weernink is the best choice. He covers a longer time period and has a greater wealth of detail in most respects, although omitting competition results before 1951 which Trow provides.

From The Readers

From Max Gregory, "Geltana," Korumburra Road, Drouin South, Victoria 3818, Australia.

In Newsletter No. 64 the British-made Chevrolet truck is mentioned. The Hartnett-eye view of this episode might be useful to someone also. He (Sir Laurence Hartnett; see AHR#; Ed.) points out that when heavy import duties, instigated by McKenna, came into force in Great Britain the tidy assembly business being done by General Motors Ltd. was faced with disaster as its product was no longer competitively priced. Bob Evans, European Regional Director, reasoned that the Hendon establishment could be kept going and Vauxhall, with slow sales and plenty of spare capacity, could benefit from the work by instituting a plan by which their Luton plant would make components, even up to 50%, for the Chevrolet. As far as it went the idea worked well but it didn't get far because a fellow called Bill Knudsen casually called while passing by. To say that he was displeased would not overstate the position and the production of Vauxhall-made Chevrolet parts ceased immediately. So did the sales of the Chevrolet on that market. Thus it was that Vauxhall moved quickly to fill the vacuum, which resulted in the introduction of the Bedford truck.

A photograph of the Bedford launching ceremony was used in some Bedford advertising material not long ago, and being in the course of correspondence with Sir Laurence at the time, I raised the incident with him. He advised that the photograph shows the first Bedford WS model 1½ ton truck with himself about to perform the ceremonial act with a bottle of champagne, while others in the group include W.O. Kennington, Managing Director, Northam of Public Relations, Lemon of Export Supply and staff from the Engineering Department and Experimental Workshop. The placard on the side of the truck is in reference to the export drive then in force to which Hartnett had committed 10,000 vehicles for that year, 1931.



From George Risley, 4863 Second Ave., Detroit, Mich. 48201

Mr. Summar's article about the Carroll automobile in the Summer 1980 *REVIEW* brings to light some solid facts about another vaguely documented name on the motor car roster. Congratulations to Mr. Summar for a well-done piece.

To add a minor note to his story, I mention a reference from the March 1921 *AUTOMOBILE JOURNAL* that lists Carroll M. Aument as production manager and chief engineer for the Wharton Motors Company, Dallas, Texas. Wharton was "active" as an auto maker from 1920-1922 (more or less).

Mr. Summar says that Aument, engineer and mechanic for the Carroll enterprise, later opened a consulting firm after leaving his job with Wright-Martin in 1919. Assuming that Mr. Aument was at that time an engineering consultant, it is conceivable that Wharton Motors availed itself of his services in designing the Wharton car but I have found nothing else that links Aument fit into the Wharton picture-as an employee or as an outside consultant?

It is really a small point, I suppose and only goes to show how hard it is to separate fact from fiction especially on the lower levels of ancient automotive history.

From Ralph Dunwodie, 9-29-81.

Dear Fred,

It is with real pleasure that I welcome the AHR back into print!

The high point of this issue to me is Marshall Naul's article on the Harmer and seeing an actual photograph of one. I agree with Naul that the touring is probably not a Harmer.

Several additional references give the following additional information:

¹Mr. Harmer worked for the Hoster-Columbus Associated Breweries Co. in 1906 - at the time that he was planning his automobile. (AH 7-4-06 p. 270)

²The company was to be financed by C. Edward Born, Carl J. Hoster, Thomas Curtin and the Curtin-Williams Automobile Co. (TA 10-18-06 p. 520)

³The stockholders will be the stockholders of the Curtin-Williams Co. (TA 10-25-06 p. 558)

×The incorporators are Frederick S. Harmer, P. Scott Stafford, E.H. Holterman, J.E. Ward, W.M. Parsons. (TA 8-1-07 p. 187)

⁴Incorporators; Fred S. Harmer, C. Scott Stafford, E.H. Holterman, J.E. Ward, W.N. Parsons, B.N. Zigler and J.H. Holterman, (AT 8-3-07 p. 1474-1475)

The 8-1-07 item in *The Automobile* announced that they intended to turn out a three-ton delivery truck in addition to the 40 hp touring cars and runabouts.

If I had to wager, I'd bet that only the one prototype roadster was ever built. And its engine shows its Fraver-Miller ancestry!!

Issue #13 of AHR came recently and a nice issue it is. Of particular use to members should be the list of libraries with older publications available. When in New Orleans recently I was able to put in some library time and can offer some additional information on what is available there.

In the Tulane University Library, in addition to the scattered issues of THE AUTOMOBILE, THE AUTOMOBILE JOURNAL and one other title dating from May 1900 to 1914 (all filed under THE AUTOMOBILE title), they have AUTOMOTIVE INDUSTRIES, mostly bound with ads removed, and apparently mostly complete from 1918 to date. Time did not allow me to check the completeness of their MOTOR run, which for some reason is listed in a different classification and section, although the card says from 1903. They have SAEM Magazine from '40s into '70s, COMMERCIAL CAR JOURNAL mostly complete from '38 into '60s or later, with a few earlier issues back to 1931.

The New Orleans City Library has AUTOMOTIVE INDUSTRIES, 1941 to date and FLEET OWNER, 1960-1971, pretty much complete.

References for Researchers

About five years ago the SAH published a research project by Dr. Charles W. Bishop, THE AUTOMOBILES OF NEW YORK. This was one of the earliest compilations to be made of the cars and trucks produced, proposed or imported within a particular state or other specific area of the country. Dr. Bishop had assembled this collection of references over a number of years and somewhat later included additional notations provided by G. Marshall Naul. The authors made no pretensions that the material was any more than a working research tool that assembled references known to them, and it was issued as a guide and incentive to further research, clarifications and additions.

Additional entries have been received, primarily from Ralph Dunwoodie (whose contributions are credited by the initials RD), and John Peckham (JMP), Fred Roe (FR) and Keith Marvin (KM). Keith Marvin has put the material in order and we present here those entries beginning with the letter 'A'. This is only a small part of the material we have and it is questionable whether it can all be presented through these pages unless spread over many issues. A more feasible way to deal with the total body of these additions may be to make them available as a supplement to the original publication. AUTOMOBILES OF NEW YORK is now out of print. Any one interested in the idea of a published supplement to it, or in obtaining a copy of the original if a new supply is made available, should write to the editor of AHR.

* **A.B.C.:** Arthur-Boynton Corp., 12 Pine St., Albany N.Y. Inc. Delaware 7-21-21. Albany City Directory 1922 lists Lee Arthur and George L. Boynton. A(C 1775 "Built for Export (232). ARM 1923 (1) lists car as air-cooled, 1922 Model "2", 12.8 rated hp, 104" wb, own engine, 4x5 b&x, 4-pass. touring and 2-pass. roadster, both at \$300. (JMP).

ALSACE: Alsace was built by Piedmont Motor Co., Lynchburg, Va. Basically a standard Piedmont with different radiator, right-hand drive and changed nomenclature. For export only by Overseas Products Co. See "Vanished Ventures of Virginia's Auto Makers" by John A. Brown, THE COMMONWEALTH - The Magazine of Virginia, April 1965. Reprinted in UHVA, Spring 1970 (18). (KM)

AJAX electric: Earlier reference which confirms one car built HA 12-25-01 (846) "The Ajax Motor Vehicle Co., 220 W. 36th St., New York City, has completed an electric runabout of 100 lbs... A second... will be ready shortly." HA 7-24-01 (372) "Incorp. for \$10,000 by S.L. Simpson, A.L. Simpson and Walter Simpson of N.Y." (RD)

* **A.K.:** The Kingston Motor Car Co., Kingston, N.Y. 1907-1909 HA 9-11-07 (336) "The Kingston Motor Car Co., Kingston, N.Y., has just put out first four cyl. 40 hp runabout... which will be known as the 'A.K.' Among those interested in the company are E.R. Thomas and O.F. Thomas, NY bankers. Walter C. Allen is president." Additional references which also apply to ALLEN-KINGSTON: AT 11-2-07½ page ad gives address as 3 West 44th St., NY. Factory, Kingston, NY, and also calls car A.K. Catj 1-08 (176) The New York Car & Truck Co., Kingston, NY began manufacturing (Allen-Kingston cars) in 1907. HA 3-11-08 (294) "New York Car and Truck Co. is petitioned into bankruptcy." AT 2-22-08 (1526) ¼ page ill. ad calls car A.K., gives the 3 West 44th St., NY address and does not mention factory location. 1909 Factory sales brochure gives the 3 West 44th St., NY address and adds: Factory, Bristol, Conn. (RD)

* **ALBATROSS:** Albatross Motor Car Co., 1780 Broadway at 57th St., NYC 1939. Ad in unidentified magazine 11-23-39 incl. photo of Albatross '137' Roadster plus note "Conceived and designed by Peter Arno" (noted cartoonist). Drawing of car plus caption in "Here at the New Yorker" by Brendan Gill (p.200). UHVA Winter 78 (27-8) "The Mysterious Albatross: Fact or Fable?" by Keith Marvin. (KM)

ALCO: Factory catalogues for 1909 and 1910 list the American Locomotive Co. addresses as 1886 Broadway, NYC, and 1201 Michigan Ave., Chicago, 1911 catalogue lists 1886 Broadway, NYC, and 2501 Michigan Ave., Chicago, Catalogue for 1912 lists 1886 Broadway, NYC, with factory at Providence, R.I. (RD)

ALLEN-KINGSTON: See also A.K.

ALPHA: tA 5-30-03 (577-8) Item and ill. of runabout. "The car is styled the Alpha and is to be manufactured for the market by a New York company of which R.E. Jarrige is the promoter." Brief description ensue. (RD)

§ **ALXO:** Probably Alco misspelled considering the proximity of the two letters on a typewriter.

AMCO: I think someone has erred in trying to connect this car with the American of Plainfield, N.J. and Bessemer truck. Photos of the Amco show no similarities to the American. Likewise none of the specs (although these could be entirely different.) Chilton's lists both cars separately with separate company names and addresses. Amco was designed by D.M. Eller (TA 3-15-17 p.538). American was designed by Louis Chevrolet (TA 12-21-16 p.1053). I have done extensive research on the Plainfield, N.J. American and never ran across anything to cause me to relate with Amco. (RD)

AMERICA or AMERICA "40" Earlier reference Catj 10-10 (72) full page ad. (RD)

* **AMERICAN:** American Carriage Motor Co., 414 East 125th St., NYC. HA 3-96 (20). "75" w.b., 60" tread. 4 cylinders, 2 cycle. The flywheel is a dynamo which charges a storage battery." The dynamo also is used as a self starter. HA 3-96 (30). "Has entered a car in the Cosmopolitan road contest." (RD)

AMERICAN: American Motor Co., Havemeyer Bldg., NYC HA 3-96 (30) ..."have secured the services of competent draughtsmen and mechanics and are prepared to work out for inventors any ideas they may have in the application of motors to vehicles." HA 7-96 (26) ..."have taken the contract to build a vehicle for C.H. Barrows, Willimantic, Conn. The

work will be performed at the company's shops, 1304 Hudson St., Hoboken, N.J." HA 8-96 (22). "The American Motor Co., Havemeyer Bldg., NY have removed their factory to Hoboken, N.J. They are running 22 hours a turning out 1½ h.p., 2½ h.p., and a 4 h.p. stationary motor. They will also execute steam motors." HA 1-97 (19) "putting up a temporary 100 ft. wood addition. Hudson St., Hoboken." HA 4-97 (9). "The American Motor Company, Havemeyer Bldg., N.Y. ... announces that an improved design of motor carriage is soon to be shown." American Motor Co. supplied motors to Automobiel Co. of America. Alexander Fischer worked for both companies. (RD)

* **AMERICAN:** American Automobile Co., Commercial Cable Bldg., 20 Broad St., NYC HA 8-23-99 (4). ½ page iiii. ad. "Hydrocarbon System." "The motor is started while seated in the carriage." Catj 10-99 (16). Art. and illust. "...is mfgd. by the American Automobile Co. of Broad St., NYC." "A three cylinder hydrocarbon motor is used." (RD)

* **AMERICAN:** Unless I misinterpret the limited material available to me, the vehicles manufactured by The Automobiel Co. of America, prior to their being called Gasmobile were named American. (RD) HA 4-19-99 79(10). Art. and illust. Mfgd both a phaeton and a tricycle. HA 4-5-99 (17). "The company's office is in the Hudson Bldg., N.Y." (Does not mention a car name, only Automobiel Co. of America.) (RD)

* **AMERICAN:** American Electric Vehicle Co., NYC The 134 West 38th St., NYC address is for their "general offices and repository." (McClure's 10-00, p.113) says 133 West 38th St., near Broadway, NYC. MA 1-11-00 (374). American Electric Vehicle Co., Third and Clinton Sts., Hoboken, N.J., "recently abandoned its Chicago quarters... a factory has been secured." (above address). (AUTOCAR 8-22-96) (510) address is 447 Wabash Ave., Chicago, Ill. Clinton E. Woods is secretary). Would like proof that the company made any Woods electrics. MVR 5-23-01 (25) gives NYC address as 100 Broadway. MVR 2-7-01 (13) "The American Electric Vehicle Co. of New Jersey has just opened a Chicago branch at 355 Wabash Ave. (their address before moving to N.J. had been 447 Wabash Ave., Chicago.) HA 11-12-02 (540). Receiver authorized to sell the plant. MA 12-13-02 (374). George Lister buys plant and good will. (George Lister was secretary of American.) AT 4-13-01 (984) Office: 134 W. 38th St., NYC (Supports later date) (RD)

AMERICAN LOCOMOTIVE: American Locomotive Automobile Company, 1886 Broadway, NYC 1908 (1908 only -became Alco in 1909). AT 7-11-08 (959). "The name Berliet has been dropped from the product of the Am. Locomotive Automobile Co. at the same time that the adjunct of the American Locomotive company has been re-incorporated with the letter." MW 10-17-07 (115). Illust. and art. "...1908 models... this year to be known as the American Locomotive Motor Car instead of 'American Berliet' or plain 'Berliet' of the past." HA 7-8-08 (62). "Berliet name dropped." (RD)

AMERICAN-LA FRANCE: This firm and its predecessors made several ventures into car production which for clarity are listed here although not all bore the same name: International Fire Engine Co., NYC, factory in Elmira, in 1903 built 3 steam propelled combination hose and chemical wagons. Same year built one chain drive gasoline engine passenger car. Make name: La France. Ref 1903 catalogues, photos. In 1905, American-La France Fire Engine Co., still using La France make name, built at least one shaft-drive roadster. Ref. factory photos and engineering drawings dated April 27, 1905. In 1909 built three chassis, chain drive, Touring bodies mounted on two. Ref. factory photos. Also built as least one roadster, shaft drive. Ref. factory photo. Under American-La France make name at least one shaft-drive roadster was built in 1910,

and another c. 1914. Both still in existence, but not to be confused with other "roadsters" of this make in existence which are modern conversions from fire trucks. (JMP)

* **AMERICAN MOTORS:** American Motors, Inc., 466 Eighth St., Troy, NY. 1946-1949. Built Delcar compact delivery truck, also one or two station wagons. H.H. Myers, president; Thomas P. McColl, vice president; Gilbert Greenway, treasurer; George Leder, secretary; Walter Levering, chairman of the board. UHVA 3-66 (24-27) "Delcar and the Other American Motors" by Keith Marvin; SIA 10-78 (32-3(56)). (KM)

AMERICAN MERCEDES: A more precise address in 961 Steinway Ave., Astoria, L.I., N.Y. (HA 1-18-05) p. XXII. an ad. (RD)

AMERICAN PEUGOT: Address early in 1905 is given as American Peugeot Automobile Co., Passaic, N.J., exclusive American representatives. (HA 1-11-05 p. XLII) (RD)

* **AMERICAN STEAM CARRIAGE:** Company prospectus - reprinted in A(C 1775 (26/27). American Steam Carriage Co., New York, N.Y. Organized in 1851. (RD)

* **AMS-STERLING:** ATJ 2-17 (195A). "The Sterling Automobile Mfg. Co., 101 Park Avenue, NYC, exhibited at the Grand Central Palace a roadster model which will be produced..." MA 1-4-17 (6). "The Sterling has had a syllable put to its name and is now the AMS-Sterling." (RD Charles A. Ams was pres. (FR)

ANSTED: MOTOR LIFE 4(21 (74 and 76) art. and illust. "Another newcomer is the Ansted roadster which is being built in New York City under the personal supervision of L.G. Hanmer, president of the Ansted Co., Inc. The body is custom built and mounted on the Model T Lexington chassis with special springs and equipped with the Ansted motor. It will be marketed by the Lexington dealers throughout the country." See also MOTOR WEST for 4-15-21. Car's price was quoted at \$4,500 f.o.b. NYC, not Connersville, Ind., where it was built. Named for F.B. Ansted who headed both Lexington and the engine company. (The Ansted was actually a customized Lexington "T" with its own radiator and nomenclature. UHVA Spring 79. "The Beautiful Ansted" by Keith Marvin. (KM)

n **ARGO:** MA 8-13-14. "The NY office of the Argo Motor Co., Inc. at 7 East 42nd St., was discontinued Aug. 1 and the executive offices of the company are now at Jackson, Mich., where the factory is located." (RD)

* **ASSOCIATED MOTORS CORP.:** 291 Broadway (1919), 1926 Broadway (1921), NYC. Export managers for American Motors Corp., Seneca Motor Car Co., Piedmont Motor Car Co., and various component mfgs; (ATD July 1919 ad) (923). (FR) Listed as "makers" of the Moller car (of Lewistown Pa.) in MA 7-14-21 (18-19) but more likely were export sales representatives only, as they were for the Sperlign (CAD 1921-27) ad, p.50). In 1922 Moller distributor was another NYC firm, H.P.M. Motors Inc., 30 Church St. (KM)

ASTER: The Aster Co., N.Y. (importers) 1906. Pictured in Motor's 1906 Directory as a sizable limousine. Michael Sedwick (in Georgano) expresses skepticism that complete cars under their own name were ever marketed by the Aster company of France, a supplier of engines and other components widely used by makers in France and England, and he believes the cars exhibited at this time by the Aster branch in England were Aster-engined Aries. It is possible that the New York cars shared the same origin. Aster engines represented earlier in NY by A.J. Myers, 307 W. 44th St., TA 4-30-04 (51) (ad), who may have brought in the cars too. Marshall Naul's entry indicates continued marketing of engines here in 1906, for use in B.L.M. cars, although the surviving example of this make is equipped with another make of French engine. (FR)

- n **ARGUS**: This was a German import, made in Hamburg and Berlin. See TA 1-25-06 (255); HA 11-28-06 (766); MoToR 12-06 (69); HA 12-5-06 (798); MA 12-6-06 (71); HA 12-19-06 (887); MoToR 1-07 (160). (RD)
- n **ARIES truck**: These trucks were made in France. See Ccj 5-15-12 (84) full page ad. (RD)
- n **ARROW LOCOMOTOR**: HA 3-96 (28) Adolph Moesch & Co., 384 Broadway, Buffalo, N.Y., Phaeton with 3½ h.p. 2 cly. gasoline. (RD)
- ARROW**: Earlier ref. Catj 1-03 (2) illust. full page ad. (RD)
- ASTOR Taxicabs**: Built by the M.P. Moller Co., Hagerstown, Md. AI 8-27-25 (346). Initial announcement. Full page art. and illust. AUHV 1960. "The Dagmar and the Moller Motor Car Company: An Automotive Enigma" by Arthur Lee Homan and Keith Marvin (Pp. 58-60). (KM)
- ATLANTIC Taxicabs, electric trucks**: Ccj 5-15-12 (5). "The Atlantic Vehicle Co., 1600 Broadway, NYC, with factory at Aralon and Verona Ave., Newark, N.J., has been incorporated with \$390,000 capital to mfr. electric commercial cars." Ccj 6-15-12 (7). "Has absorbed the Royal Machine Co. of Newark, N.J., thereby acquiring its factory..." Ccj 1-15-13 (82) full page ad. "Atlantic Vehicle Company, 1600 Broadway, NYC, 10 Post Office Square, Boston, Mass.; factory, Newark, N.J." (RD)
- ATTERBURY**: See Auto-Car; Buffalo
- AUTO-ACETYLENE**: TA 11-99 (48) full page ad. Offices, 13-21 Park Row, NYC. Both a passenger car and a truck are illustrated. (RD)
- AUTO-DYNAMIC**: Name should be hyphenated. They did make vehicles. MA 10-18-00 (239) art. and illust. "The neat little trap shown... is made by the Auto-Dynamic Co., at their factory, 140 West 39th St., (NYC)." TA 2-01 (32) art. and illust. "The Auto-Dynamic Company, located at 140 W. 39th St., NYC, has just brought out the electric delivery wagon shown." TA 6-01 (129). art. and illust. "Builds electric vehicles." Hansom cab pictured. (RD)
- AUTO-CAR**: MW 12-2-09 (469). "A change of name for the Auto-Car Mfg. Co. of Buffalo, N.Y. took place yesterday (Wed.) by which hereafter it will be known as the Atterbury Motor Car Co...." "The Company (Auto-Car), which mfrs. Buffalo Comm'l cars, trucks and sight-seeing vehicles..." (See Atterbury; also Buffalo) Auto-Car Equipment Co., Buffalo, N.Y., HA2-3-02 (144). Incorp. \$50,000. (RD)
- AUTOMOBILE FORECARRIAGE**: Note that Hiscox did not hyphenate Fore-Carriage in his 1900 p. 194-196 ref. HA 2-21-00 (16) Incorporated under West Virginia laws for \$5,000,000. "The company will mfr. the Kullstein-Vollmer gasoline forecarriage and other automobiles." Again note no nyphen, and Fore-carriage as a single word. (RD)
- * **AUTO SUPPLY COMPANY**: Auto Supply Co., 310 Mott Ave., New York, N.Y. Catj 8-01 (24) art. and illust. "This carriage has been made by ... to demonstrate the qualities of various parts which they mfr..." (RD)
- AUTOTRI**: HA 10-31-00 (18). "E.A. Thomas Motor Co., Buffalo, N.Y. mfrs a motor tricycle called the Autotri and a light two-passenger vehicle, the Autotwo." See Autotwo, Thomas. This car should not be confused with the Auto-Tri, built in 1899 by C.W. Kelsey in Chestnut hill, Pa., which today is part of the land transportation collection of the Smithsonian Institution. (RD) (KM)
- AUTOTWO**: See Autotri.
- A & R trucks**; More complete address. From Newburgh City Directories, Newburgh, NY 1906-12. "Abendroth & Root automobile manufactory, River front north of North St." (RD)
- AETNA truck**: ATJ 9-20 (390). 'being produced by the Aetna Motors Corp., 617 W. 57th St., New York City. The above seems to bear out Walsh. All of my refs. prior to this one are all Detroit, Mich., 1913-1915. (RD)
- * **ALDRICH**: Frank Aldrich, of Oneida, N.Y. ... is said to be about to start a motor vehicle company at Oneida. HA 9-6-99 (10). (RD)
- n **AMERICAN COMMER**: Although incorporated in Dec. 1912 as American Commer Truck, Inc., the truck continued to be known as the Commer. (RD)
- n **ANSONIA**: Was incorporated for \$10,000 and the purpose of the incorporation is not stated in this sole reference. (Ha 2-3-04, p. 144). I think it doubtful that it was incorp. to mfr. automobiles. (RD)
- AUTOMATIC electric**: CCJ 10-15-21 (40). "It is known as the Automatic Electric'." A small delivery is pictured. (RD) Car pictured in Georgano. (FR)
- *? **AUTO TRANSIT**: Auto Transit Co., Syracuse, N.Y. MA 2-6-08 (29) ... "has been incorporated with a capital stock of \$5000 to engage in the mfr of motor cars, wagons and vehicles." (RD)

The following contributed by Ralph Dunwoodie

AMERICA "40", A 1911 model only, (CATJ Oct. 1910 p. 27, full page ad)

n? **AMERICAN Automobile Motor & Power Co**, Brooklyn, NY; 2 cyl, chain drive, operates off two carbonic acid gas cylinders. (T.A. Feb. 1900, p. 32 article)

n? **AMERICAN Carriage Motor Co.**, NY. "have entered a car in the *Cosmopolitan* road contest" (H.A., March 1896, p. 30; note)

n **ARGUS** this was the German import, made in Hamburg and Berlin. (T.A. 1/25/06 p. 255; MoTor 12/06 p. 69, 1/07 p. 160; M.A. 12/6/06 p. 71; H.A. 11/28/06 p. 766, 12/5/06 p. 798, 12/19/06 p. 887

AMS - STERLING "the Sterling Automobile Mfg. Co. 101 Park Ave, N.Y. exhibited at the Grand Central Palace a roadster model which will be produced...(ATJ Feb. 1917); The Sterling has had a syllable put in its name and is now the AMS - Sterling. (1/14/17 M.A. p. 6)

AUTODYNAMIC my references show *Auto-Dynamic Co.* 140 W. 39th St. N.Y. and pictures the *Auto-Dynamic* delivery wagon (T.A. 2/01, p. 32-33) *Auto - Dynamic Co.* 140 W. 39th St. N.Y., pictured as an electric two seater. (M.V.R. 10/11/00, p. 12)

AMERICAN MERCEDES a more precise address is 961 Steinway Ave., Astoria, L.I., N.Y. (H.A. 1/18/05 p. 22, an ad)

AMERICAN PEUGEOT address early in 1905 given as: American Peugeot Automobile Co., Passaic, N.J. exclusive American representative (H.A. 1/11/05 p. 42)

AMCO (A.T.J. - April 1920 p. 350) New York address — 100 Broad St. (C.A.D. - April 1922 p. 34) New York address — 100 Broad St. (A.T.J. - Feb. 1921 p. 47-48) Being displayed at an export show).

AMERICAN American Electric Vehicle Co. The 134 W. 38 St., NYC address is their "General Offices and Repository" (McClures-Art 1900 p. 113) says 133 West 38th St., near Broadway, New York. (this is an ad) (1/11/00 M.A. p. 374) American Electric Vehicle Co., Third and Eliston Sts., Hoboken, N.J. "recently abandoned its Chicago quarters... a factory has been secured" (8/22/96 Autocar p. 510) address is 447 Wabash Ave., Chgo., Ill. and Clinton E. Woods is Secretary. (I'd like proof that this company made any Woods Electrics) (5/23/01 M.V.R. p. 25) gives N.Y. address as 100 Broadway. (2/7/01 M.V.R. p. 13) "The American Electric Vehicle Co. of New Jersey has just opened a Chicago branch at 355 Wabash ave. (their address before moving to N.J. has been 447 Wabash Ave., Chicago) (11/12/02 H.A. p. 540) Receiver

authorized to sell the plant. (12/13/02 M.A. p. 374) George Lister buys plant and good will. (George Lister was Secy. of American).

AUTOTRI E.A. Thomas Motor Co. Buffalo manufacturers (10/31/00 H.A. p. 18) a motor tricycle, called the autotri, and a light two passenger vehicle, the autotwo.

AUTOTWO (See above) If one is admissible — isn't the other? Or neither? A Buffalo?

BURROWS Cyclecar appears to have offered 1915 models only. See (A.T.J. Dec. 1914 p. 168 & 193)

COMMANDER (9/28/22 A.I. p. 638) Commander Motors Corp., with headquarters at 49 Wall St. and a factory in Chicago is the successor to the H.W.O. Motor Corp. Chicago.a \$5,000 car designed by Hugo W. Ogren, one time head of Ogren Motors Co. of Milwaukee. (10/4/22 M.W. p. 37) Milwaukee plant will be used until the Chicago factory is completed.

COMMODORE According to (C.A.D., April 1922 p. 34) address in N.Y., N.Y. was 1552 Broadway.

DESHAW (C.A.T.J. Oct. 1909 p. 157, 158, 159, 160) Address in Evergreen L.I. (suburb of Brooklyn, N.Y.), was 50 Summerfield St.

DESBERON Factory dated 1904 sales brochure confirms your 51st St. & 12th Avenue address and also states "Our factory is in New York City"

ELITE I believe D.B. Smith & Co., Utica, N.Y. were sales agents for EMPIRE (ST.) The ELITE was a model of EMPIRE (Nov. 1901 A.R. p. 92) (Dec. 1901 C.A.T.J. p. 34 & 35)

EMPIRE (ST.) (1/30/04 T.A. p. 149) Says Wm H. Terwillign & Co. Car was fitted with an air brake.

GERLINGER (12/7/16) M.A. - 53) "NEW TRUCK ANNOUNCED — The Gerlinger Motor Car Co., Tacoma, Wash. announces...." (7/13/16 T.A. p. 83) 1st truck delivered.

GYROSCOPE (Sept. 1908 C.A.T.J. p. 61) Address of General selling agents and distributors: Gyroscope Automobile Company (Inc.), Gyroscope Building 231 West 54th St., NYC. This ad pictures a chassis which confirms that the car is the Blomstrom car of Detroit. (9/8/09 H.A. p. 271) Blomstrom reported to have sold patents for Gyroscope car to the Page Company of Adrian, Mich.

HENRIETTA (ST.) Henrietta Motor Company, 420 East 110th St., NYC. (1/16/01 H.A. p. 28 & 29) Good description and photos. The Whaley — Henriette of St. Paul Minn. was a gasoline vehicle (July 1900 T.A. p. 114 & 115) p. 115 has a photo.

HERKIMER Further support of this — (10/31/03 T.A. p. 472) "J.A. Clark of Herkimer, N.Y. is now placing on the market a new gasoline car which he has named the Herkimer Roadster".

B.C.K. B.C.K. Motor Car Co. were builders of the KLINE-KAR. The Bath, N.Y. plant was called the Kirkham Motor and Parts Co. of Bath, N.Y. and was acquired to manufacture motors and transmissions for the Kline-Kar. (Pictorial History of Pleasure and Commercial Vehicles mfgd. in York County, Pa. — Fred Posenmiller p. 60). Somewhere I have read that the Bath, N.Y. plant was turning out Kline designed aviation engines, (I think). (But ref. not in file).

BALZER (Oct. 1898 - H.A. p. 15) reads "This is the third three-cylinder carriage motor which Mr. Balzer has built" (Not 3rd such car built)

BARROWS (10/98 H.A. p. 40) given office address at 310 West 53rd St., N.Y. and adds another year to its lifespan.

(new) BRAY "JAMES B. BRAY, WAVERLY, N.Y. ... is building a small carriage for his own use. It will be propelled by two gasoline motors..." (3/97) H.A. p. 6)

BUCKMOBILE 1902-1905 (2/13/02 M.W. p. 487) Illustrated ad reads: **BUCKMOBILE UTICA AUTO MOBILE CO., UTICA, N.Y.** (6/11/02 H.A. p. 715) "The *Buckmobile* Com-

pany of Utica, N.Y. has been incorporated... the succeed The Utica Automobile Co. (6/17/04 M.A. p. 21) The *Black Diamond* Automobile Co. has made arrangements to consolidate with the *Buckmobile* Co., of Utica, N.Y. It will continue to make practically the same machines as are now being made by the *Buckmobile* Co. The *Black Diamond* company has also purchased the *Remington* plant, which is situated in Utica. (9/14/04 H.A. p. XII) Ad: reads The *Buckmobile* built by Black Diamond Automobile Company, Utica, N.Y. still being sold in 1905: (6/05 C.A.T.J. p. 166) 3 models with prices. (7/27/05 **MOTORING** and **BOATING** p. cover) Business wagon ad with illust. & features.

BUFFALO (electric)¹ (4/18/01 M.V.R. p. 23) gives co. name as: Buffalo Electric Carriage Co., Military Rd. & Belt Line, Buffalo, N.Y. "an electric carriage" wood wheels. 15 mph top speed. Best mileage gotten at 8 mph. Capacity 50 miles. (A.A.C.A. 3/65 p. 19) Has good photo of these cars. (T.A. 3/28/03 p. 353) illustration.

BUFFALO³ Buffalo Gasoline Motor Co., Buffalo, N.Y. (2/04 C.A.T.J. p. 127) Listed as licensed under Selden Patent. (5/23/01 M.V.R. p. 28) "has a complete running gear on display at the Pan-American Exposition"

BUFFALO² (8/10/02 H.A. p. 269) Absorbed by Thomas (9/20/02 T.A. p. 17) Absorbed by Thomas — which is probably superfluous.

DUQUESNE (4/29/03 H.A. p. 541) Duquesne Motor Car Company, Buffalo, N.Y. Inc. \$50,000 (Howe, Johnson & Pelletier)

ELECTROCAR (taxicabs) (illustration) (4/11/22) M.W. p. 35) Electrocar Corp. of New Brunswick, N.J. (Another one with Jos. A. Argalada involved — see Liberty cyclecar and others). Offices at 501 Fifth Ave., N.Y.

AMCO I think someone has erred in trying to connect this car with the *American* of Plainfield, N.J. and *Bessener* truck. Photo of the *Amco* show no similarities to the *American*. Likewise none of the specs. (although there could be entirely different) Chilton's lists both cars separately with separate company names and addresses. *Amco* was designed by D.M. ELLER (T.A. 3/15/17 p. 538) *American* was designed by Louis Chevrolet (T.A. 12/21/16 p. 1053) I have done extensive research on the Plainfield, N.J. *American* and never ran across anything to cause me to relate it with *Amco*.

GASMOBILE Automobile Co. of America, Hudson Bldg. N.Y.C. (4/5/99 H.A. p. 17) Organization Maine, \$5,000,000 "has purchased the American rights of the *Decauville* carriage." "They have made a contract with the American Motor Co. for the use of theirmotors." (Flaglen, Stevens, Kimball, Otto, & Blount) (The article does not specifically name the *Gasmobile*)

(new) AMERICAN CARRIAGE MOTOR COMPANY, OF NEW YORK (3/96 H.A. p. 20) 4-cylinders, in pairs. 2 cycle. *American?* "are placing upon the market a novel mode of veh. construction". (8/3/99 H.A. p. 12 & 13) Automobile Co. of America are now putting through their first lot of 50 dos-a-dos carriages. 7 HP. 2 cylinder (No mention of **GASMOBILE**) (1900 - HISCOX p. 233, 234 & 235) In an article titled **MOTORS AND VEHICLES OF THE AUTOMOBILE CO. OF AMERICA** does not name **GASMOBILE** but does shed some light on the American Motor Co., 32 Broadway, NYC indicating that they have become a part of A. Co. of A. (1/16/02 M.V.R. p. 26) Article announces failure of the *American Motor Co.* of Jersey City. Albert T. Otto is President of the co. Also states that it was a branch of the *Automobile Co. of America*. (2/12/02 H.A. p.—) *Receivers appointed for both the Automobile Co. of America* (Mary, Flogler, Stevens, etc.) and the *American Motor Co.* (Underwood, Mary, Cook, Otto **GASMOBILE** not named.

- n **OAKMAN MOTOR VEHICLE CO. NYC.** I would like clarification of Naul's reference. (10/98 H.A. p. 15) "The mfgs. of the Hertel Carriages are the Oakman Motor Vehicle Co., Greenfield, Mass." (9/98 H.A. p. 26) Mfgs. of the Hertel motor carriage, Greenfield, Mass. (4/5/99 H.A. p. 20) Greenfield, Mass. "are making the first shipments from the lot of fifty carriages they first put through".
- n **INTERNATIONAL VEHICLE CO. OF NEW YORK** was chartered on March 1 under W. Va. laws, \$5,000,000 capital. (4/5/99 H.A. p. 20) "All kinds of motor vehicles will be made and operated in the large cities of the country."
- n **RAY 1902** (5/1/02 M.W. p. 173) "Frank S. Ray, 1231 Fulton St., Brooklyn, N.Y. — designing and building business and pleasure automobiles to order."
TRANSPORT Additional references: (11/15 A.T.N. p. 179) "This illustration shows the gasoline tractor made by the Transport Tractor Co., Inc. of L.I.C., N.Y.." (11/18/15 T.A. p. 945) "The Transport tractor is the latest addition to the roster...." Transport Tractor Co., L.I.C., N.Y.
- n **TRI-STATE MOTOR CO.** This is a transcribing error. The reference given actually reads: "Tri-City Motor Co., Albany, N.Y." (Doubtful that this is a mfg.)
- n **WHITE** (4/12/99 H.A. p. 12) "The White Motor Wagon Co. has been inc. in N.J." with a capital stock of \$10,000,000 to mfr., sell ... of Lewis B. White." "The N.Y. office is at 1128 Broadway." (4/26/99 H.A. p. 9) "The White Motor Wagon Co. have based a part of the plant of the Diamond Truck Co., Kingston, N.Y. and are constructing a carbonic acid wagon there."
- n? **WILLOUGHBY** (1/28/03 H.A. p. 189) "The Willoughby Company of Utica, N.Y., has been incorporated to make automobiles and other vehicles, capital \$160,000; directors, J.F. Maynard, J.A. Roberts, F.T. Proctor and T.R. Proctor, all of Utica." (Did they begin bldg. cars then back off to bodies only?) (12/30/03 H.A. p. XXII) Ad: Willoughby Company, Utica, N.Y. "Mfgs. of High Grade Automobile Bodies." "Custom Work A Specialty."
WILSON 1902 - (2/02 A.R. p. 44A) Ad: Wilson Automobile Mfg. Co., Wilson, N.Y. "All parts to complete automobile." The best gasoline automobiles on Earth." (3/05 C.A.T.J. p. 100) Wilson Gasoline Car made by Wilson Auto Mfg. Co., Wilson, N.Y. Wilson, Model E, Price \$900, 1 cyl., 4½ x 4½.
BARROWS (additional to my 11/13/77 ltr) (H.A. 3/96 p. 30) "has completed an experimental machine." (H.A. 8/97 p. 15) "formerly of Willimantic, Conn." Office (now) at 302 W. 53rd, N.Y.C.
CARLSON address was 623 Bergen St. in Brooklyn. (CATJ April 1904 p. 99. ill., specs.)
- n **CONSOLIDATED Motor Co. and CONSOLIDATED M.V. Co.** It would seem that these are one and the same despite the "V". (C.A.T.J. May 1904 p. 75 ill., art, letter) A friction drive *Moyea* truck was entered in the commercial vehicle text held in N.Y. under the auspices of the Automobile Club of America. *Henry C. Cryder* is president of *Consolidated Motor Co.* Vehicle name *MOYEA*.
DESBERON (CATJ May 1901 p. XIX ill., specs.) Address given is: Desberon Motor Car Co., 12 Rose St., New Rochelle, N.Y. A huge steam truck is illustrated along with specs.
MOYEA (T.A. 1/17/03 p. 77 art.) *Moyea* is an Indian word meaning swift running. *Henry C. Cryder* formerly receiver for the Automobile Co. of America (*Gasmobile*) is president and general mgr. of the new *Moyea Automobile Co.* (This article also refers to the "American Rocket Schneider" cars.) (H.A. 6/24/03 p. 745 note) "The first *Moyea* touring car,...., has just made its appearance." A model was exhibited at the N.Y. Show and described in previous issue of 2/11/03. (Also see *Consolidated Motor Co.*)
- ? **NEW ENGLAND Electric Vehicle and Transportation Co.** had its birth in New Jersey on March 23. (H.A. 4/5/99 p. 17 note) "The Co. is one of the offshoots of the Electric Vehicle and Transp. Co. of N.Y. and the Electric Vehicle Co. of the same place."
- n **PITTSBURGH Motor Vehicle Co., Concord Ave. and East 143rd St., N.Y.C.** (C.A.T.J., Art 1910, p. 92, note) 'recently moved its factory and main office from Pittsburgh, Pa. to New York City' 'mfgs. of commercial electric vehicles'.
PNEUMATIC Carriage Co., 253 Broadway, New York. The 'late in 1897 H.A. ref' may be (H.A., Art 1898, p. 46, art) (compressed air carriage)
POMEROY Motor Vehicle Co., No. 249 Willoughby St., Brooklyn, New York. (CATJ, March 1902, p. 130, ill, art, specs.) The above address is from this reference. Uses a kerosine oil engine. (Motor World 3/27/02 p. 697, 1/3 page ad) BUT company's own says it is called the *Keromobile*.
RAINIER (T.A. 1/17/03 p. 68, show exhibitor) "Made by Berg Auto. Co."
- n **TUTTLE²** (H.A., 9/23/03, p. 342, note - incorp.) D.M. Tuttle Company. Baldwinsville, New York. \$60,000. Daniel M. Tuttle, Wm. H. Lindly, Frank G. Bell, James F. Willison, Hiram Howard. To mfg. boats and automobiles. (Could this possibly be related to the Tuttle truck of '13-'14? Both Canastota and Baldwinsville are near Syracuse.)
TWOMBLY (T.A., 4/8/15, p. 649, bankruptcy note) April 7 -F.W. Stelle was yesterday elected trustee in bankruptcy of the *Twombly Car Corp.* of 1790 Broadway with a bond of \$5,000. D.D. Sherman was elected trustee for the *Twombly Motors Co.*, the *Twombly Power Co.*, and the *Twombly Taxicab Co.* (Carette June 1915 p. 11, note) W. IRVING TWOMBLY purchases factory, tools and machinery. (This doesn't seem to bear out the theory that Driggs-Seabury was building Twombly cars at the end.) (I have 76 indexed refs. on the Twombly ranging from 1/20/04 to Jan. 1916.)
VICTOR st. (CATJ, May 1901, p. XIX art, ill, specs) Is called Overman Automobile Co., 81 Fulton St., New York in May 1901. (H.A. 4/5/99 p. 16, note) Overman Wheel Co., *Chicopee Falls, Man.* "the first *Victor* steam carriage will be a 600 lb stanhope." (M.V.R. 10/4/00 p. 748) "The Overman Automobile Co. whose main office is located at 81 Fulton St., N.Y. with factory at *Chicopee Falls, Man.* had its first motor vehicle on the streets two weeks ago."
WEST (additional info) (H.A. 8/2/99 p. 13, note) Millard F. Blaine and Mr. Young of Geneva, N.Y. are looking into the merits of J.B. West's steam motor vehicle with a view to mfg. it. (perhaps only the one built up until now?) (H.A. 8/9/99 p. 11, ill., art) J.B. West's experiments have resulted in him settling upon steam as the most suitable to his purpose. (M.V.R. 9/5/99 p. 24, art) Describes the 5 h.p., 60 lb. steam engine. (M.V.R. 10/3/99 p. 10, note) J.B. West....has just completed a new steam carriage that...is considered the fastest vehicle in the Rochester area. (also mentions the runaway horse (below)) (M.V.R. 2/21/01 p. 21, lawsuit, art) An action brought by Mason Bros. against the executors of the estate of Jonathan P. West because Mr. West's steam vehicle frightened the horse which ran away and demolished Mason Bros. laundry wagon.
STATIONETTE (3 wheeler) (1954 sales flyer) Shown at the 1954 World Motor Sports Show at Madison Sq. Garden. Bottom of flyer reads: Martin Stationette Associates exclusive licensees for the USA. Engineered for production by Commonwealth Research Corp. 11 West 42nd St., New York 36, N.Y.
STATIONETTE (3 wheeler) (A.I. 12/15/54 p. 35, ill, note, specs) ...formerly the *Martin Stationette*, is now being in-

- roduced by Bassons Industries Corp. (STATIONETTE Updated flyer) "Engineered and built by the Martin Development Company, Rochelle Park, N.J." (Updated letter) "Body by Biehl, of Reading, Pa." from Bassons Industries Corp., 1432 West Farms Rd., N.Y. 60, N.Y. (M. Noel Roth - Public Relations Dept.) The *Martin "Stationette"* is shown at the World Motor Sports Show Jan. 23-31, 1954. (POP. MECH. May 1955 p. 156, note, ill.) "STATIONETTE" The Stationette was an updated *MARTINETTE* mfgd. in 1948 by Martin Development Laboratories, Rochelle Park, N.J. which was an updated 1932 *Aerodynamic*. (Even with these references, a lot is left unclear.)
- ERVING** My only reference lists this as Erving Reliable and also without a maker and location. Montville does not list it in *Am Car 1775* either (M.A. 1/16/11 p. 12 ill. & desc.) This ref. is 2 years earlier.
- FISHER** Additional support & additional information (The *Motocycle* p. 17) April or Aug. 1896 — Handwriting indistinct. In 1840, built a small steam wood carriage. 1852, built another. 1858, built two self-propelled steam fire engines. 1859, built a steam carriage. (World on Wheels — H.O. Duncan - Vol. 2 p. 911) 1853 - built a small steam carriage.
- PECKHAM** I find no evidence of a car or truck by that name. They built trucks for railroad cars and trolleys. The became Kingston Mfg. Co. which built such cars as Allen-Kingston (I think others) (M.W. 4/26/06 p. 683) "... a reorganization of the bankrupt Peckham Motor Mfg. Co. ..."
- (UNKNOWN)** (T.A. 5/23/03 p. 562) "A company for the mfr. of motor vehicles has been formed in Rochester by W.H. Snyder, W.A. Hartzell, W. E. Bonzo, Philip Lee, C.C. Noss & Hartford P. Brown."
- CLOSE** (Further support) (a year earlier) (Co. name change) (M.W. 2/19/03 p. 769 note) "Close Will Make Cars" "The Close Cycle Co., Olean, N.Y. will manufacture automobiles also. They are at work on a car that will be ready for the market in a short time."
- NEFTEL** Automobile Co., (further support) (C.A.T.J. 2/03, p. 75-76 art, ill., desc.) Several experimental cars have been built. (T.A. 1/31/03 p. 142 note) 11 were sold by Vehicle Equipment Co. at show.
- (new?) COOK** Theodore A. Cook, Calicoon, N.Y. (T.A. 3/29/06 p. 577 note) "Three automobiles are being constructed..." "These are for the use of the 1907 South Pole expedition" (Perhaps not road vehicles)
- (?)new BUFFALO Specialty Co.**, Buffalo, N.Y. (T.A. 6/1/05 p. 682 inc. note) Incorporated. \$500,000 'To mfrg. automobiles.' Oliver Cabana Jr. E.T. Brown, M.J. Cabana, all of Buffalo.
- EAGLE² Motor Carriage Co.**, Elmira, N.Y. (C.A.T.J. 7/08 p. 77, 78, & 80 ill., art, specs.) Illustrates a 2 cylinder A/C Highwheeler with longitudinal side springing.
- HALSEY Steam Truck** (H.A. 9/14/04 p. 257-258 art, ill.) "this truck is mfgd. by James T. Halsey 51st St. and 12th Ave., N.Y.C. (C.A.T.J. Jan 1906 p. 160 art, ill.) "A new steam truck has lately been put on the market by James T. Halsey Motor Truck Co., 336, 338 New York Ave., Philadelphia, Pa." (Truck pictured is the same as in the 1904 item.)
- (new) MAJESTIC Automobile Co.**, New York City (T.A. 6/1/05 p. 682 inc. note) Incorporated \$5,000 "to manufacturer automobiles. George H. Mulligan, Emily C. Mulligan, William J. Greene.
- MOTOKART** (MOTOR FIELD, 7/14, p. 31 1/2 p. ad-ill.) (address) The MOTOKART Company, Tarrytown and Peekskill, N.Y., General Office, 1790 Broadway, N.Y.C.
- NIAGARA** (ITEM OF POSSIBLE INTEREST) (THE BUFFALO MOTORIST May 1910, p. 56 1/2 p. ad-ill.) Niagara Motor Car Company, 1142 Main St., Buffalo, N.Y. This 1/2 page ad makes no mention of the NIAGARA. But are agents for the HUP-MOBILE and CHASE MOTOR WAGON.
- NICHOLS** (T.A. 2/20/08 p. 265 note) "D.P. NICHOLS & CO., 116-122 West Brookline St., Boston, Mass., are building... a convertible limousine ambulance." (Have they now moved to Boston?) (Or does this cast some doubt on the entry?) (Just body builders?)
- (new)? R & L Company**, N.Y.C. (H.A. 5/10/11 p. 844 inc. note) Inc. \$100,000. "To mfrg. motor vehicles." J.T. Ranier & P.N. Lineberger.
- ? VEHICLE EQUIPMENT CO.** of Waverly, L.I. has incorp. ...\$3,000,000. (T.A. 5/23/03 p. 562 inc. note) (another name?) "This concern makes the electric commercial trucks that are being used so extensively in N.Y.C." Martin Conboy, H.T. Mead, L.D. Baldwin, C.A. Green, Hentry Schoenherr of N.Y. — incorporators.
- TORBENSEN** Gen'l. offices and factory are in Bloomfield, N.J. for both of the years mentioned (1904-1905). They could have had a sales agency in N.Y.C. as did most makes.
- REMINGTON¹** (H.A. 6/3/03 p. 664 note) Bishop seeks date of company name change which the following reference does pretty well: "The Remington Automobile Company, Utica, N.Y. has been reorganized with W.N. Owen, formerly of the Willoughby — Owen Co., as mgr. under the name of the Remington Motor Vehicle Company. Ten machines are under way. (H.A. 10/17/00 p. 15, C.A.T.J. 1/01 p. 60 & M.V.R. 3/14/01 p. 39 all read: Remington Automobile and Motor Co., N.Y.) (M.V.R. 5/23/01 p. 28 UTICA At 43-45 First St.)
- KENSINGTON** More to add to my letter of 11/12/78: (M.A. 2/8/00 p. 455) Co. name still: Kensington Bicycle Mfg. Co., Buffalo (C.A.T.J. Jan. 1901 p. 66) Co. name now: Kensington Automobile Mfg. Co., Buffalo.
- PLAYBOY** Bishop asks for references: (Cleveland Press, Aug. 1947) "Playboy makes debut Monday". (Buffalo Evening News, April 1949) "Playboy Files for reorganization". (Motor, 11/47, p. 374 full page ad) "Proudly We Present The Playboy" Factory & Exec. Offices: 988 Elliott St., Buffalo. (AUTOMOTIVE IND. 2/1/48, p. 19) Formally opens Tonawanda plant on Jan. 20. Has 15 completed models.) (CCARS - May 1953 p. 68) "The end came in the winter of 1951 when a federal court liquidated its remaining asset for \$50,000." 97 cars built.
- POMEROY Motor Vehicle Co.** (C.A.T.J. March 1902 p. 130) This ref. confirms co. name: Pomeroy Motor Vehicle Co., Bklyn, N.Y. This one is different — I prefer to rely on a company's own ads: — (M.W. 3/27/02 p. 697 1/3 page ad) The Pomeroy Mfg. Co., 249 Willoughby St., Brooklyn, N.Y. "There is a kerosene-burning automobile offered to the public. We make it. It is called *THE KEROMOBILE*." (Then ad lists the 4 styler offered).
- n Worthington Automobile Co., & BOLLEE** (French) (predates Crydor & Co.) Dated catalog (Jan. 1904) reads: Worthington Automobile Co., Fuller Bldg., Broadway & 23rd St., New York. Rubber overstamp reads: REMOVED TO 547 FIFTH AVE., COR. 45th ST. "Manufacturers of Steam, Gasoline & Electric Vehicles" "The company has acquired the exclusive license, for America, for the mfrg. and sale of *Leon Bollee* Cars, and pending the completion of the works, arrangements have been made for importing these cars, during 1904..." "It is also intended to undertake the mfrg. of steam cars..." (They certainly were optimistic — plus) Dated catalog (April 1904) gives the Fifth Ave., address "Manufacturers of Steam and Gasoline Cars" (Notice they dropped "Electric")

TIME • THE TEST OF QUALITY CRAFTSMANSHIP



Exhibiting on

LINCOLN
MARMON
DUESENBERG
CHRYSLER IMPERIAL
CHASSIS

LOCKE & CO.

MOTOR COACH WORK

440 EAST 56TH ST. AND 40 GREENLEAF ST.
NEW YORK CITY ROCHESTER, N.Y.

Locke & Company

During the Classic Car Era,
1925—1932

By Harold H. Emmons, Jr.

This is the continuation of Mr. Emmon's article on Locke and Company, the 1979 Cugnot Award winner, which was originally published in TORQUE, magazine of the Michigan Region of the Classic Car Club of America, November—December 1978 issue. We are indebted to Mr. Emmons, L. Kirk Walters, former editor of TORQUE, and the Publications Committee of the Michigan Region CCCA, for permission to use this material, which may not be further reproduced without their permission as well as that of the SAH.

Part II of Locke and Company describes bodies on sixteen makes of chassis and includes over 160 illustrations. In TORQUE it took up 34 pages. We do not have the resources to devote this much space to it, and with the kind assent of Mr. Emmons have condensed the material somewhat by the removal of a number of the photographs, but only where there were multiple views of a body or several detail shots. None of the text has been changed and all references to the photos remain.

We do not like to run serials or break up material and apologise for the need to do so in this instance. Readers who desire to see the full version can write the Michigan Region CCCA at 1929 West Lafayette Ave., Detroit MI 48216 for a copy of this back issue of TORQUE.

RUXTON

Promises, promises! An initial production run of 12,000 planned: only 300-375 ever made.

The Classic with the briefest, most turbulent life was the Ruxton, billed and widely advertised (see accompanying ad reproduction) as America's first production front-wheel-drive car (it beat out the L-29 Cord by a few months). It was the sole product of New Era Motors, inc., of New York City, at the time of its conception. The first model was probably hand-crafted in Philadelphia and most of the rest under temporary arrangements at the Moon Motor Company plant in St. Louis, then to the Kissel plant in Hartford, Wis-

consin, then back to Moon in St. Louis where the last few were assembled under the Trustee in Bankruptcy in 1931 and 1932. It really never had a home of its very own.

Youth-oriented but luxurious, it was low and racy in appearance. It literally burst upon the scene at the 1928 Chicago Auto Show with the Locke & Company custom five-passenger sedan shown in **Illustration No. Ru-1** (designer's concept), and **Illustration No. Ru-2**, pictured at the Chicago Auto Show).

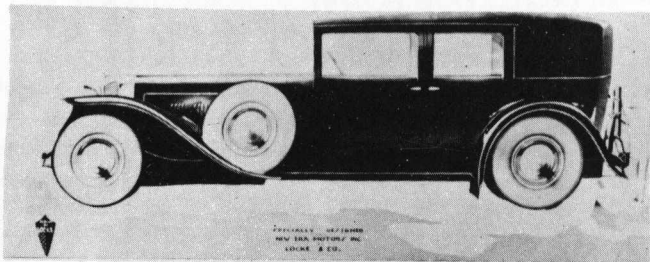
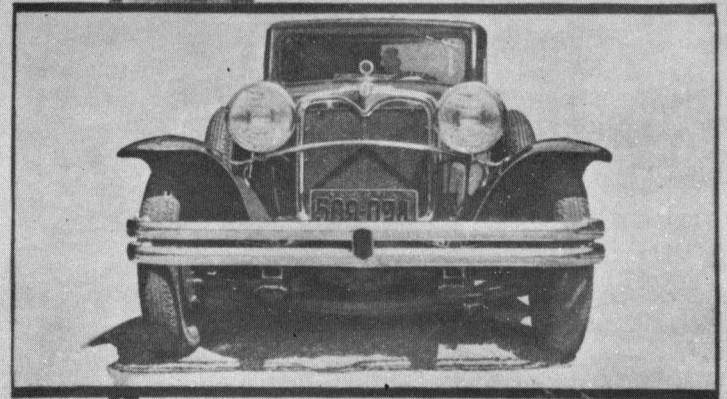


Illustration No. Ru-1

Of the many tributes that have been paid the Ruxton, none is more flattering than the tangible recognition now accorded it by the several custom body-builders exhibiting at the Automobile Salon. That they have found in this notably new and utterly different motor car an inspiration for their artistry and craftsmanship is an encomium that we, who build the Ruxton, accept as a charge to ever fashion a chassis with open minds and patient hands.



RUXTON

COLORINGS CREATED BY JOSEPH URBAN - EXCLUSIVE FABRICS BY SCHUMACHER
COACH WORK BY BAKER - RAULANG, HOLBROOK, LOCKE
the product of New Era Motors, inc. - 17 east 45th street, New York City

A number of other custom body firms eager to "seize upon" the new, radical chassis design supplied other models, the best remembered being the Baker-Raulang roadster.

New Era Motors, Inc., was organized by twelve men in New York City under the leadership of Mr. Archie M. Andrews. The one most looked to for financing was named Ruxton, hence the name of the car.

The Locke-bodied sedan was described in the pre-Chicago Salon issue, November, 1929, of *Autobody* magazine as follows:

"This body will be entirely in black without striping. The extremely low and flat chassis permits an unusual design with ample headroom. The customary mouldings and running boards are omitted and the body sides are carried well down on the chassis side members".

Jack Donlan, Ruxton historian of the Michigan Region CCCA, states that twenty Ruxtons are known to exist but that apparently none carry Locke bodies.

CHRYSLER

By 1927 Walter P. Chrysler had decided that his top-of-the-line Imperial L-80 would be the company's prestige car, available from a custom catalogue with distinctive bodies by Locke, LeBaron and Dietrich, principally. According to Esquire's "American Autos and Their Makers", 1963, page 100, he even built a special plant to produce their designs, supplementing their own production.

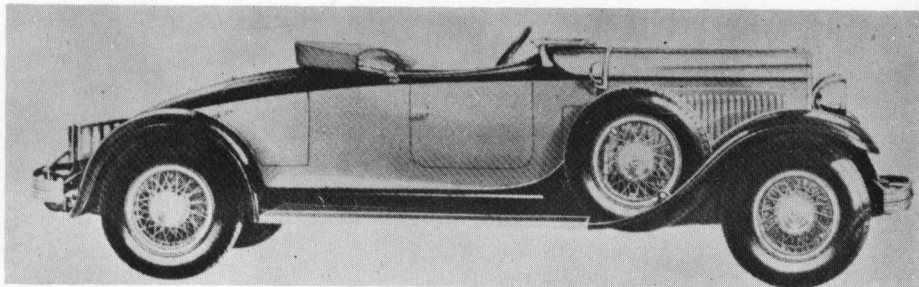


Illustration No. C-1

Locke's first two designs reflected its superior expertise in open coachwork. **Illustration No. C-1** is a rendering of the 1929 low-cut Imperial L-80 Sport Roadster with fold-down windshield, dual side mounts, trunk rack and side door access to the rumble seat. **Illustration No. C-2** is an official photo showing the operation of the rumble seat door and the simultaneously-opening dual-windowed section of the rear deck lid linked mechanically to the door for automatic opening and closing.

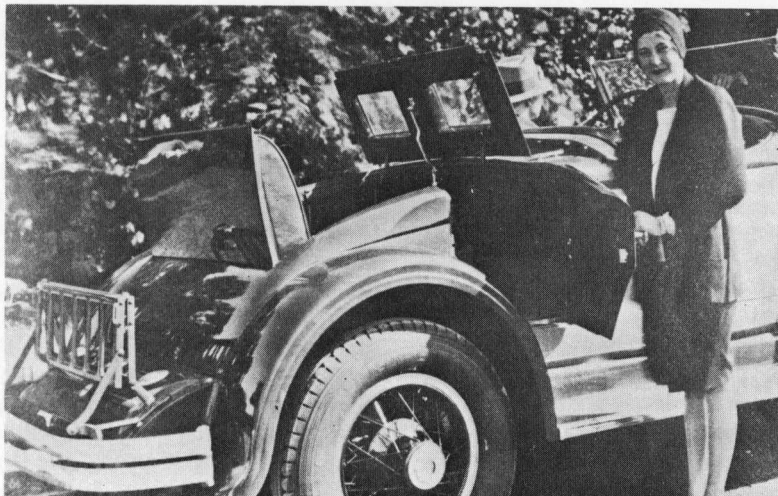


Illustration No. C-2

In addition, the top was completely removable, adding to the sleekness of this design. Some writers stated that Locke appeared to be the only custom body builder capable of fabricating a roadster body of this style sufficiently rigid to meet normal use.

A special version of this body style with curved, lower cut doors, shown in **Illustration No. C-3**, was created, and heavyweight champion Jack Dempsey is shown entering one, surrounded by factory admirers. At this late date no one seems to know whether The Champ ever owned one of these, but one way or another this widely published picture must have been great publicity.

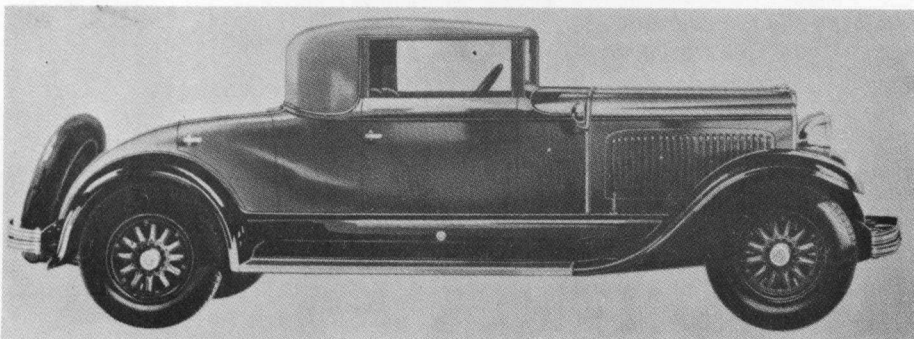


Illustration No. C-4

A rumble seat coupe version was also available in late 1928, with rear-mounted spare and artillery spoke wheels. Note also the running board light. **Illustration No. C-4**.

The Paul Stern collection's 1929 Imperial Sport Roadster is shown in **Illustrations No. C-5 and C-6**.

Mr. Stern wrote me that this car (Serial No. EP 495 C) was originally a two-tone blue when purchased by a Pennsylvania resident in New York City, and is now the traditional Chrysler combination of black and cream. It has been a consistent trophy winner.

The second of Locke's original custom catalogue creations for Chrysler was the 1928 Imperial L-80 Touralette two-door shown here in factory photos, **Illustrations No. C-7 and C-8**.

This striking style innovation created quite a sensation at the Auto Shows and Salons around the country and was the

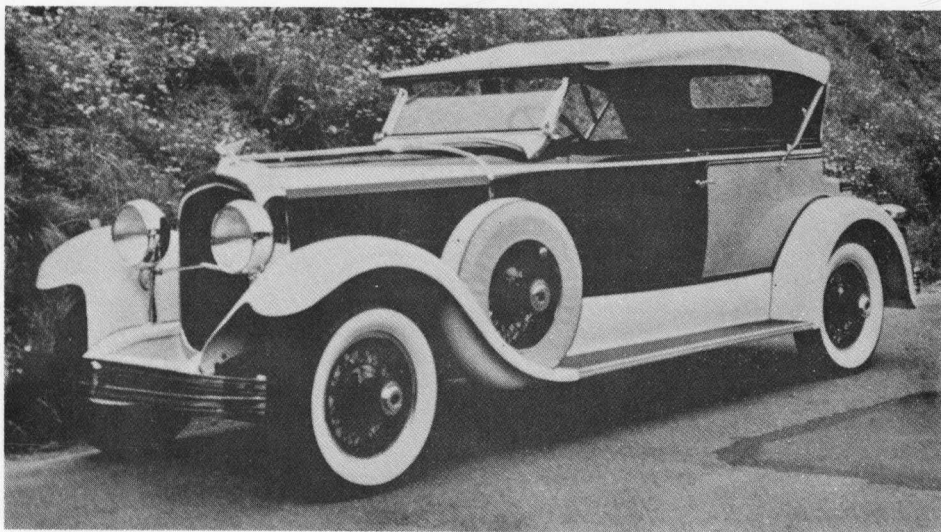


Illustration No. C-10

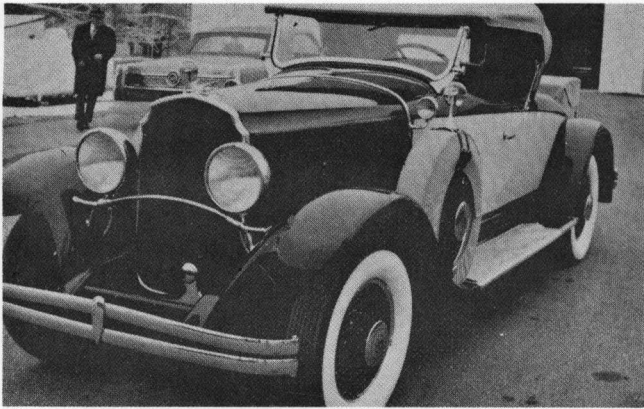


Illustration No. C-5

prime subject of Chrysler ads in leading publications (Illustration No. C-9).

Among the innovations were an extremely wide door on each side for easy access to the rear seat, continuation of the Chrysler Imperial hood fluting in a wide band around the body, built-in trunk with lid painted the body color, and canné, or sham cane (see first part of this article) applied to the body from door to door, including the trunk.

Also from the Paul Stern collection is

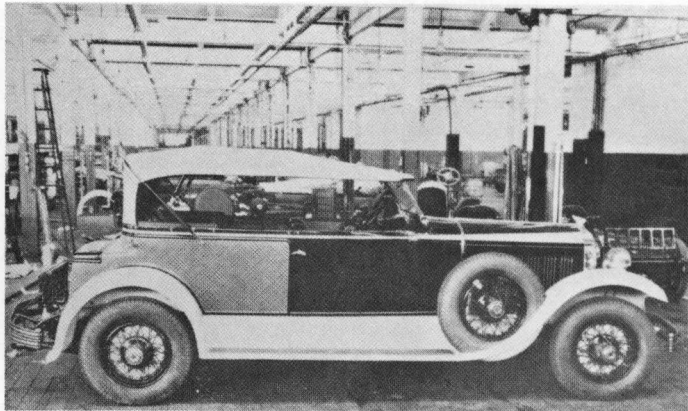


Illustration No. C-7

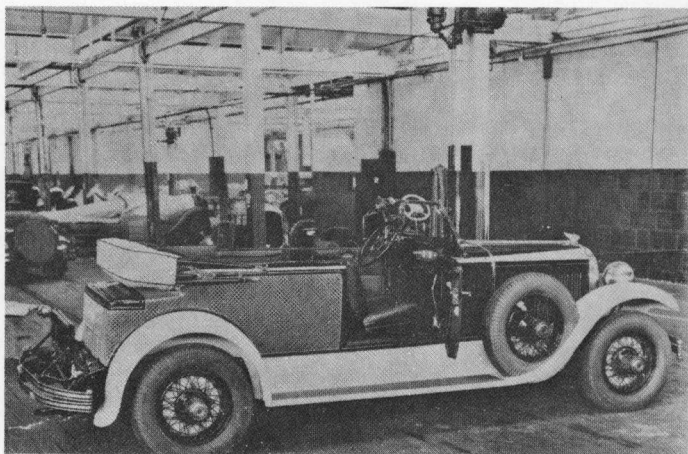


Illustration No. C-8

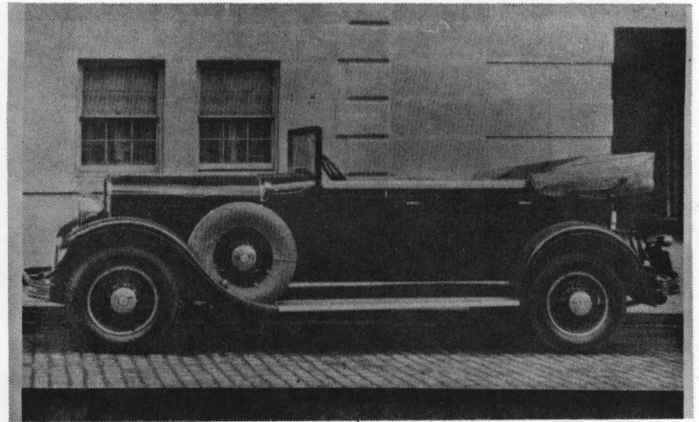


Illustration No. C-13

the Touralette (1929) shown in **Illustration No. C-10** (Serial No. PPL 226).

Mr. Stern wrote me that this car (in black and cream) was originally in the diplomatic service in England. Brought to this country in 1962, it was acquired by Mr. Stern in 1973 and restored in 1976-77.

Here it should be noted that for the 1929 year Chrysler chose Locke & Company for its entire factory and custom catalogue line (see Carson "*The Olympian Cars*", Knopf, 1976, p. 89). Locke even

designed in 1928 the Sport Phaeton for the new Chrysler "75" (**Illustration No. C-11**).

Another Locke design which attracted much attention was the Imperial Dual Cowl Phaeton first shown in December, 1928, at the New York Auto Salon at the Commodore Hotel (**Illustration No. C-12**).

Autobody magazine noted the wide beading around the tonneau of the Salon car in Primrose Yellow, also used for the underside of the fenders, chassis and brake

THE NEW
112 H.P. CHRYSLER
IMPERIAL
"80"

Justly the
Choice of those
Who Know the
Finest

Every day the new 112 h. p. Chrysler Imperial "80" is winning new allegiances—winning new owners from among motorists familiar with the best of other cars.

Because, by every test by which automobiles are judged, it is superior to these other cars in performance, quality and value.

Not alone because it is one of the world's most powerful motor cars, but because that power is translated into terms of flawless performance.

Not alone because its bodies are remarkable for their long graceful lines, their fine upholstery and fittings, their charm and diversity of chromatic coloring. But because in these hand-built bodies by Chrysler, Locke, LeBaron and Dietrich, is that well-defined note of restraint that speaks true smartness.

For performance with superlative comfort and the individuality of exclusive bodies, this splendidly-engineered and precision-built Chrysler is justly the choice of those who know the finest motor cars. Hence, the swing to the new 112 h. p. Imperial "80."

Roadster (with rumble seat), \$2795; Five-Passenger Sedan, \$3295; Town & Sedan, \$2995; Seven-Passenger Sedan, \$3675; Sedan Limousine, \$5495; also in custom-built types by Dietrich, LeBaron and Locke. All prices J. & R. Chevrolet, subject to change. Excludes tax.

Illustration No. C-9

drums. Valentine's "dust-proof" gray, deep, was used for the body, upper side of the fenders and chassis aprons. Center folding arm rests were provided in both seats. The secondary windshield could be cranked down into the rear cowl. The downward sweep of the front doors at the belt line produced a quite sporty effect.

At the New York Auto Show at Grand Central Palace, January, 1929, Chrysler exhibited three of its nine Locke designs: the convertible coupe, convertible sedan and the sport roadster. The convertible sedan (also called the convertible phaeton) had a number of unusual features. The side windows were so hinged that they formed a rear windshield when folded inwards. **Illustration No. C-13** shows this model without these windows.

The exterior of this car was finished in Spinel Blue, so dark as to appear black in most light, but a pleasing contrast to the polished aluminum rolled belt at the garnish rails. Striping was in silver leaf and window frames were chromium plated. The Wolferman top was covered with a light colored canvas. The interior was trimmed in a plain, stretched two-tone Bedford cord on the seats and leather on the sides. Hinged center arm rests were in both front and rear seats. There were open pockets under the side arm rests. In the leather trim forward of the side arm rests, vanity and smoking sets were concealed with small lids to keep out the dust. The pockets in the leather trimmed doors had flaps of Bedford cord.

The convertible coupe for Imperial is shown in **Illustration No. C-14**.

This long, lean design also carried a rumble seat with side-entrance door and synchronized, dual-window section of the rear deck lid shown in **Illustration C-2** on the sport roadster.

A Locke design for a 1929 Imperial sport coupe with wire wheels, running-board chest and golf bag door appears in designer's concept, **Illustration No. C-15**.

Its rather conservative appearance is enlivened by a contrasting color panel whose dramatic swept curve continues the line of the Imperial hood fluting. No production figures are available.

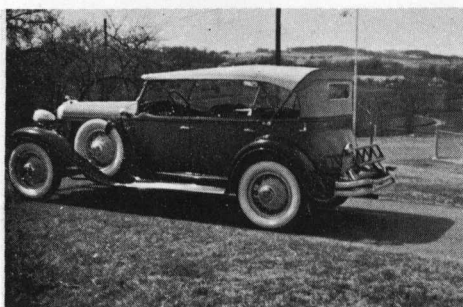


Illustration No. C-17

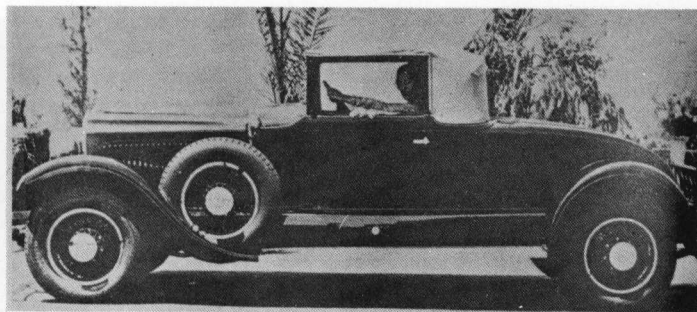


Illustration No. C-14

Illustration No. C-16 shows the Locke seven-passenger Imperial touring car for 1929 and 1930, built on individual order from the custom catalogue. A pleasing and lowering effect was produced by continuing the contrasting light color of the Imperial hood fluting in a wide belt to the rear, and across the narrow rear cowl.

The year 1931 was, as I have noted, close to the end of the line for Locke & Company, along with many other noted custom body firms. However, at the 1930 Chicago Auto Salon at the Hotel Drake in November, Locke exhibited a convertible sedan on the Imperial chassis done "in the modern manner" relying entirely on light and shade of the contours and omitting the "stereotyped" moulding treatment.

The body, fenders and aprons were painted in Ditzler's Henna, the chassis and underside of the fenders were in DuPont Primrose Yellow.

The top material was a double-coated Burbank. The interior was trimmed in a combination of fabric and leather: a coral-tan-and-gray mixture De Luxe broadcloth was used for the seat cushions, backs and

for the plaited centers of the door panels. The seats and backs had leg and head rolls of Eagle-Ottawa veal-finished light brown leather which was also used as a roll border for the door panels.

The cabinet in the front seat back received the center pillars when not in use. It also had space for two Thermos bottles. The cabinet was painted in the body color and the doors had canné, or sham cane in Primrose Yellow.

No pictures of this Salon model have been located, but a 1931 Locke-bodied DeLuxe CD 8 Dual Cowl Phaeton (formerly in the Paul Stern collection) finished in medium green with black fenders, yellow wire wheels and tan top is shown in **Illustration No. C-17**.

Interestingly, the same model is pictured in an official Salon Show photograph, with a trunk and with top and windshields lowered. **Illustration No. C-18**.

In the 1931, 8, CG Series, Dr. John Shell of North Carolina appears as owner of a finé example of the Locke-bodied five-passenger phaeton.

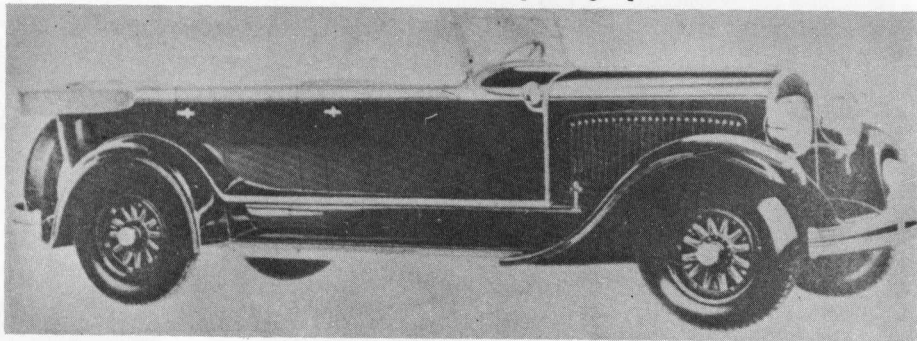


Illustration No. C-16

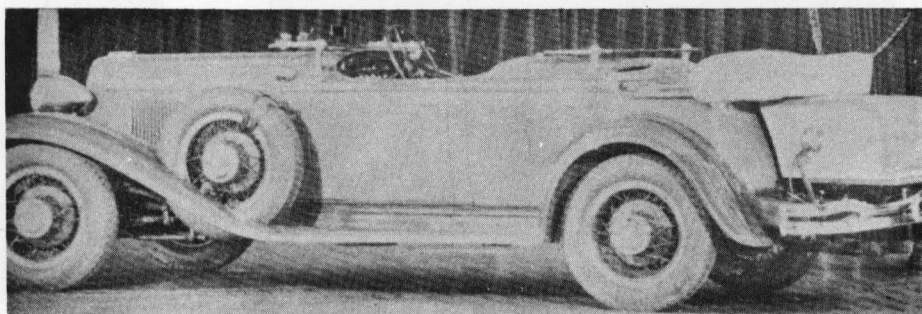


Illustration No. C-18

STUTZ

Stutz Motor Car Company of America entered the Classic car era in total disarray. The stock market wheeling and dealing of its former president, Allan Ryan (eldest son of multi-millionaire Thomas Fortune Ryan), had driven the company to the brink of bankruptcy liquidation. In fact, Ryan himself went bankrupt in 1922. Fortunately, the future president of Bethlehem Steel, Charles M. Schwab, friend of the Ryan family, graciously purchased Allan Ryan's stock and launched a strong campaign to restore Stutz to its former enviable position and reputation in the industry.

New and top quality styling was given a high priority and many of the leading custom body firms were invited to participate. Locke submitted among others the two 1926 designs, **Illustrations No. S-1 and S-2**, respectively a low, long and nicely proportioned 7-passenger Sport Touring, and a V-windshield Berline 4-door which conceivably could also be produced in a convertible sedan mode.

The new 145" wheelbase was an ideal length for these body styles, but it is not known whether any were produced.

Locke's sleek 1926 convertible rumble seat coupe with wire wheels and side-mounts, **Illustrations No. S-3 and S-4**, and its 1927 successor on the Safety Eight chassis, **Illustration No. S-5**, were said to have been quite popular.

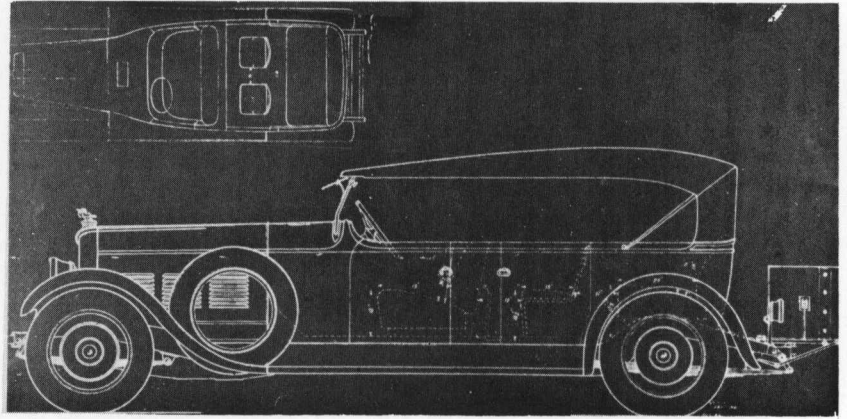


Illustration No. S-1

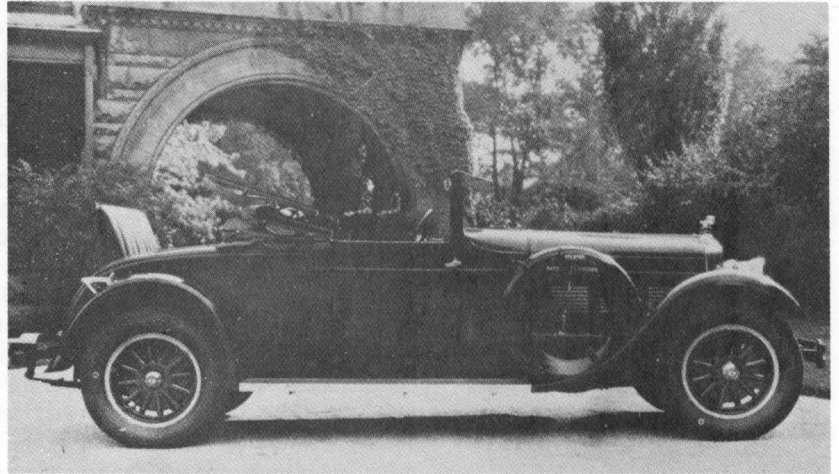


Illustration No. S-5

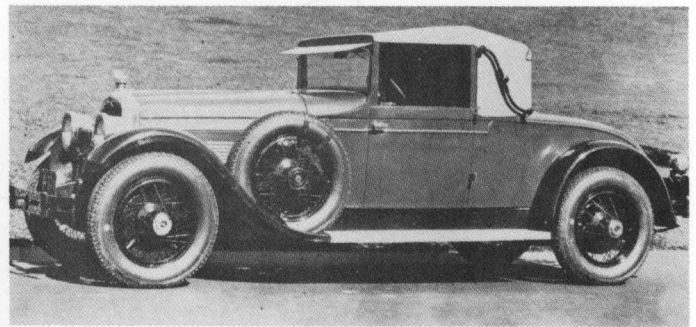


Illustration No. S-3



Illustration No. S-6

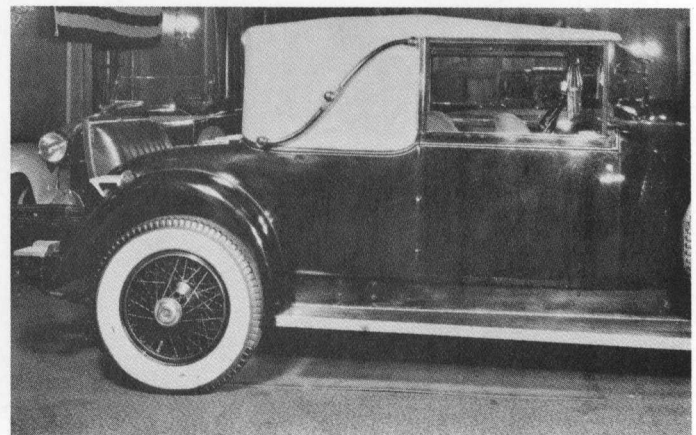


Illustration No. S-7

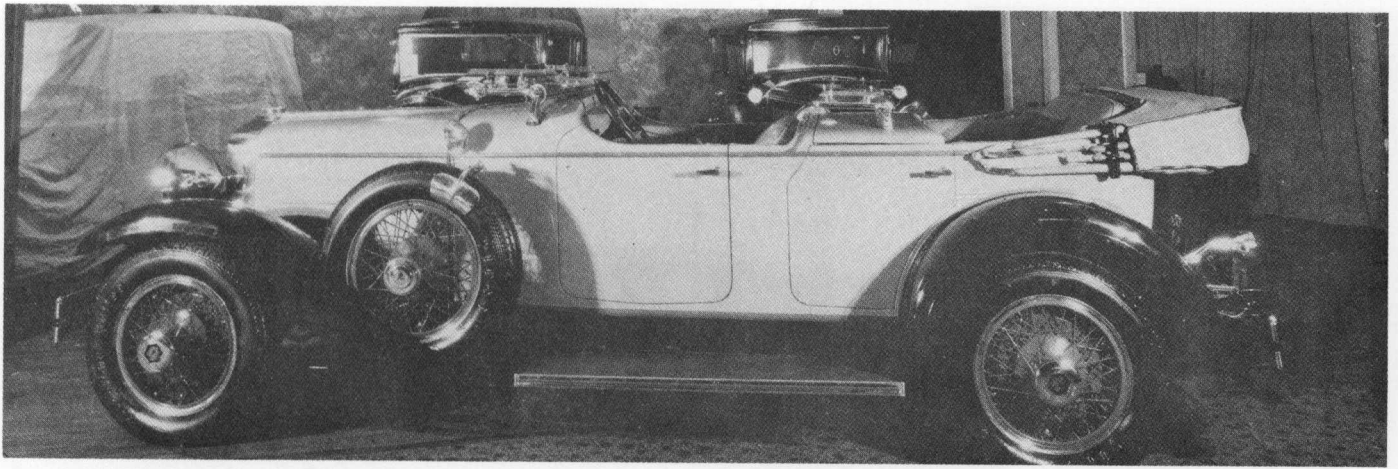


Illustration No. S-8

One of Locke's most unusual body creations, again on the 145" chassis, was the 1928 Convertible Victoria, 8 BB, with rumble seat, shown in **Illustrations S-6 and S-7**, Lazarnick photos.

The extremely wide door and front seat adjustable on tracks made possible easy entrance and accommodations for five people inside, complete with floor heater for cold weather comfort. The rumble seat was still available for two persons with fur coats. Truly a handsome, all-weather car.

Locke's contribution to the famed "Black Hawk" series appears in the Lazarnick photo, **Illustration No. S-8**.

Shown at the 1929 New York Auto Show, this striking dual cowl phaeton, Model 8 B, on a 127½" wheelbase carried twin sidemounts and trunk rack in the rear; and its flowing lines and attractive proportions again underline Locke's imagination and expertise.

WILLS SAINTE CLAIRE

In journalistic circles in Detroit it was known as the "reporter's dream" during the 1920s. Those assigned to cover emergencies and other fast-breaking stories and who were fortunate to have a Wills Sainte Claire roadster usually arrived first on the scene, and were first back at the office with copy and pictures.

The car was the climax of the brilliant career of C. Harold Wills, mechanical and metallurgical wizard, formerly with Ford Motor Company. He set up shop at Marysville, Michigan, to manufacture a finely engineered and crafted car powered by a 60-degree overhead cam V-8 engine (and later its companion in-line six). Both engines were his own design. The speed and durability were aptly represented by the Canada Goose emblem on the radiator shell.

This writer still vividly recalls a ride he had in the middle 20s with a reporter from

Automobile Quarterly, Spring 1963 issue, Vol. II, No. 1, pays high tribute to the Stutz DV 32: "a magnificent car it was"—it coincided with "the last great Indian Summer flowering of the American custom body builders", with "superb" bodies by Locke and others at the Drake

and Commodore Hotel salons in 1931, 1932 and 1933. However, I have not been able to positively identify the Locke designs.

Quite possibly there are existing examples of Locke-bodied Stutz cars but none have been located to date.

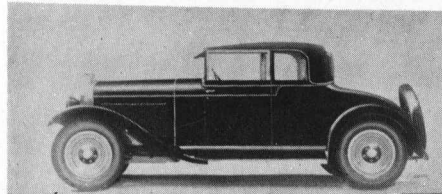


Illustration No. W-1

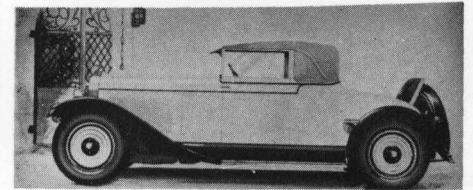


Illustration No. W-2

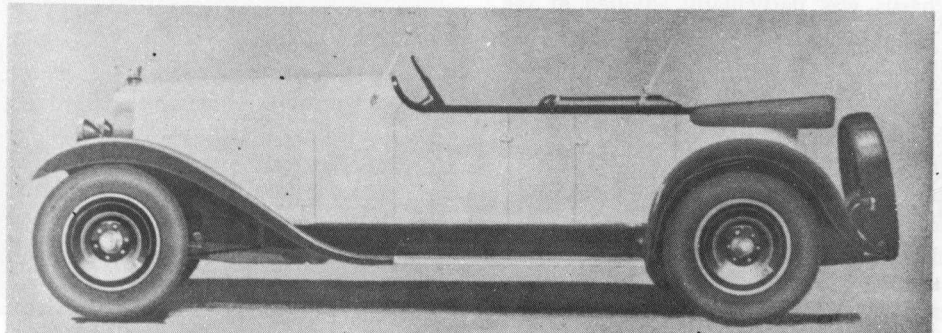


Illustration No. W-3

a now-defunct Detroit newspaper to the dedication of an American Legion facility for crippled children in which my father was deeply involved. The site was about 45 miles from downtown and the reporter knew all the back-road short cuts. And while I had already done some dirt-strip flying in aeroplanes, I had never flown so far so close to the ground!

For the 1926 line, John Tjaarda, Locke & Company's chief designer at Rochester, submitted the three striking designs shown

here: **Illustration No. W-1**, the 4-passenger coupe, **Illustration No. W-2**, the convertible rumble-seat coupe, and **Illustration No. W-3**, the dual cowl phaeton.

The originals of these three illustrations are to be found in the National Automotive History Collection, Detroit Public Library.

There is no information as to production, and 1926 is generally accepted as the last year for Wills Sainte Claire Motor Co., Inc.

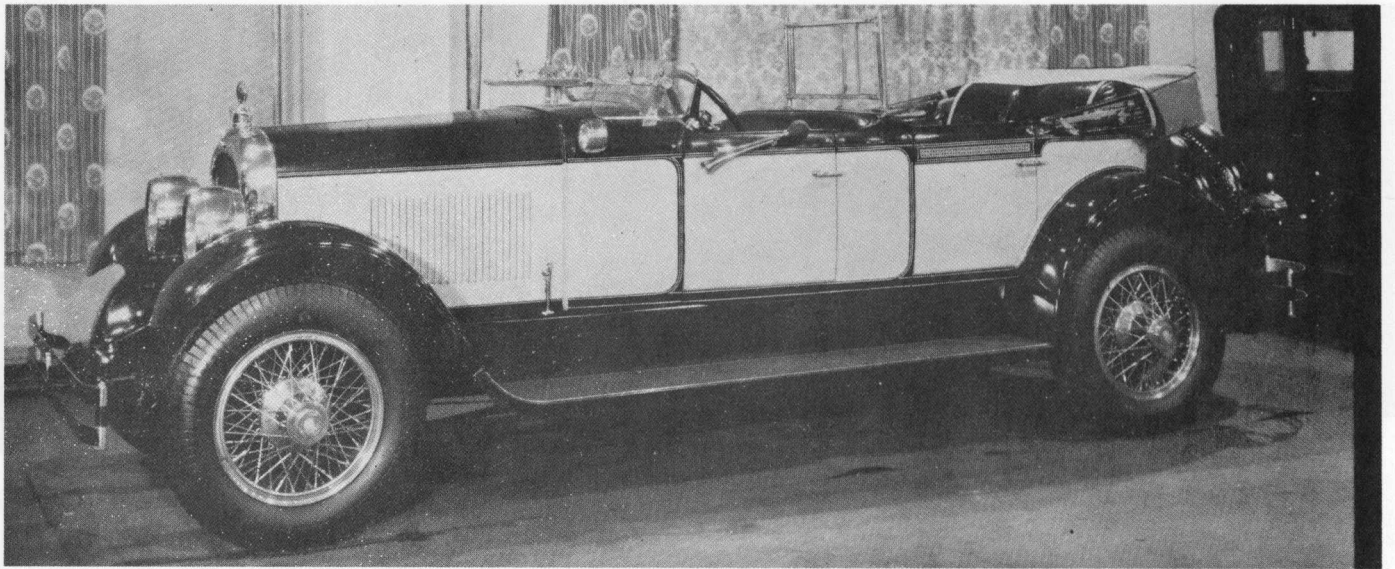


Illustration No. Ma-1

MARMON

"Marmon" – a word that quickens the pulse of any old car buff with memories of past Indianapolis Speedway glories, and of a solid record for superior performance.

However, by the middle twenties it became apparent to the company that something had to be done to improve the car's styling. Locke & Company was one of the custom body firms to be approached to accomplish this, and the production year 1927 saw several Locke creations applied to Marmon chassis

The Dual Cowl Speedster pictured in **Illustration No. Ma-1** on the "big" Marmon chassis was particularly admired at the New York Auto Show where this Lazardnick photo was taken. Note the characteristic Locke "speedboat cockpit" sweeping cowl line and the strip of French cané sham cane at the top of the rear doors. Note also the effective striping for which Locke was well-known, and the clean

sweep of the belt line from front to rear separating the dark upper body from the light lower panels. The elaborate chrome-plated wire wheels complement the altogether super-sport effect of this car. An existing example of this model can be found in the William E. Swigart, Jr. collection in Pennsylvania.

In marked contrast, illustrating Locke's versatility, **Illustration No. Ma-2** shows the 1927 Marmon 75 sedan-limousine by Locke about which *Autobody* wrote:

"This sedan-limousine is offered in seven color and trimming options. Note the embossed oval monogram panels on

the door, and the raising of the lower belt moulding at the rear quarter. Different fabrics are used for the seats and wall lining, the trimming of the former being done in wide plaits. Armrests have sponge-rubber cores. The interior hardware is a special pattern. Smoking and vanity cases are mounted on the door belt panels, both being of walnut".

Two auxiliary or jump seats are folded into the back of the front seat.

The same body shell was used in the Series 75 seven-passenger sedan, interior factory photos of which appear as **Illustrations No. Ma-3 and Ma-4**.

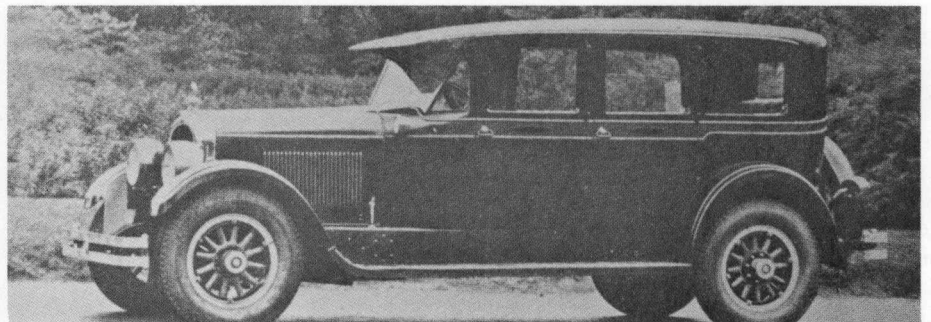


Illustration No. Ma-2

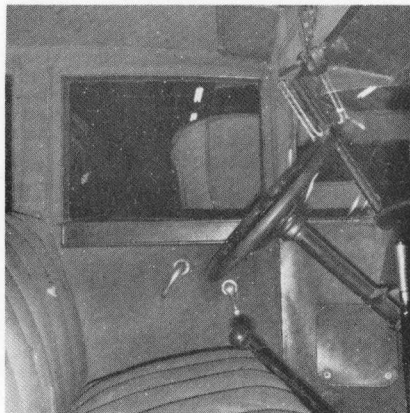


Illustration No. Ma-8

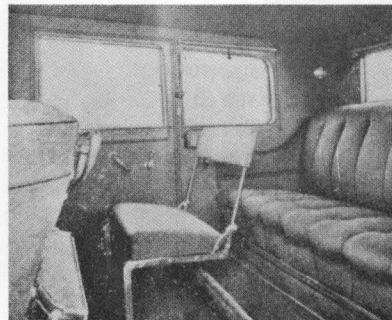


Illustration No. Ma-3

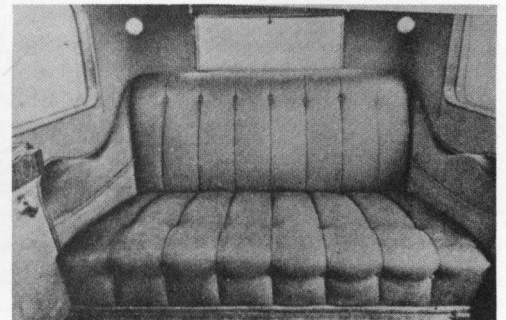


Illustration No. Ma-4

Harrah's collection contains an unrestored, original example of this Series 75 seven-passenger sedan, shown in **Illustration No. Ma-5**.

Jim Edwards at Harrah's graciously furnished me with details. The body is painted black with dark green on the hood, top and belt moulding. Striping is dark green. All exterior bright work is nickel-plated. The interior upholstery is light gray broadcloth with white pin-striping. Carpeting is gray short pile wool. The dash is medium stain walnut burl with nickel plated trim. Window frames are trimmed in medium walnut. The door handles have extensive filigree etchings and are plated in nickel satin. **Illustrations No. Ma-6**,

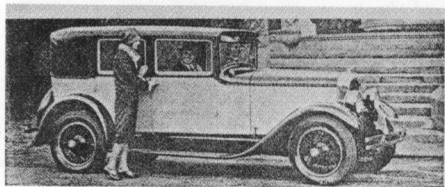


Illustration No. Ma-9

Ma-7, and Ma-8 are interior views of the Harrah car.

While the "little" Marmon as such has not been rated a Classic, two Locke-bodied models would seem to deserve inclusion in this article. **Illustration No. Ma-9** shows the 1927 "little" Marmon 8 two-window custom built sedan by Locke, a very pleasing treatment on a short wheelbase.

At the 1927 New York Auto Salon there was a "little" Marmon cabriolet-style Town Car shown in **Illustration No. Ma-10**. The interior is shown in **Illustration No. Ma-11**, together with the description by a writer for *Autobody* magazine, January, 1927, issue.

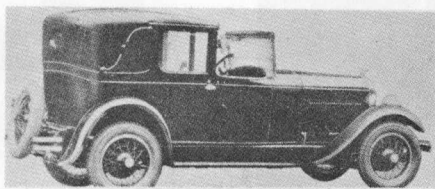
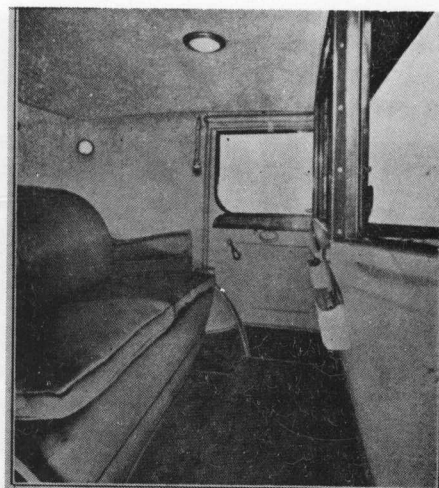


Illustration No. Ma-10



Interior of the Locke cabriolet-type town car mounted on the Little Marmon chassis—an excellent treatment of this new high-grade small car. The interior is typical of a number of the Salon trends in its use of decorative wooden door belt panels, the embossed effect on the lower panel, the plain-stretched upholstery and the three-tone interior with light wall covering, darker seat and still darker carpet. The wall and headlining were of champagne-colored broadcloth, while the seats were in a darker Laidlaw broadcloth with loose down cushions. Because of the short wheelbase, 116 in., no auxiliary seats were provided and the companion cases were fitted on the partition panel. Altogether the body builder is to be congratulated on attaining so pleasing an effect on this short wheelbase.

Illustration No. Ma-11

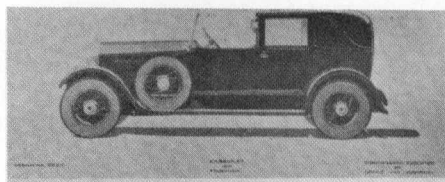


Illustration No. Ma-12

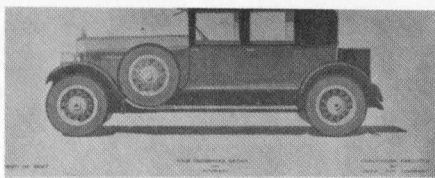


Illustration No. Ma-13

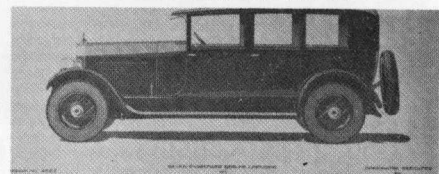


Illustration No. Ma-14

It could rightly be assumed that Marmon and its customers reacted favorably to Locke's 1927 body styles. For 1928, Locke executed the coachwork for three new bodies shown here in designer's concept. **Illustration No. Ma-12** is a cabriolet Town Car with wire wheels and sidemounts on the "big" Marmon chassis. **Illustration No. Ma-13** is a wire-wheeled, trunk and sidemount-equipped four-passenger sedan. **Illustration No. Ma-14** is a formal seven-passenger Berline Limousine. From the wording on each, "Coachwork executed by Locke & Company", I would assume that these three were actually produced, but I have found no existing examples.

On the 1929 Marmon 78 chassis, Locke designed and built the handsome town car cabriolet shown in **Illustration No. Ma-15**.

In 1931 two more open Locke bodies were added to the line: the roadster with artillery spoke wheels shown in **Illustration No. Ma-16**, and the stunning dual cowl Touring owned by C. S. Ehinger of Missouri shown in **Illustrations Nos. Ma-17, 18, 19 and 20**. This Touring is painted in two tones of beige with dark brown leather interior—a popular Marmon color combination.

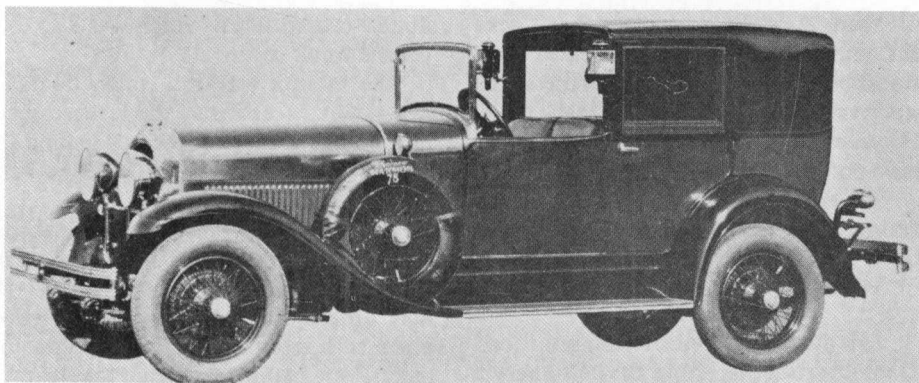


Illustration No. Ma-15

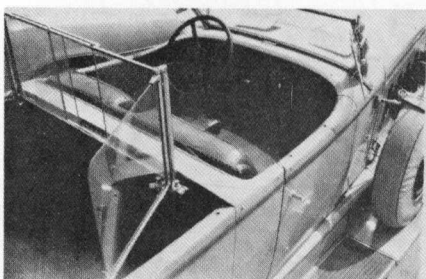


Illustration No. Ma-17

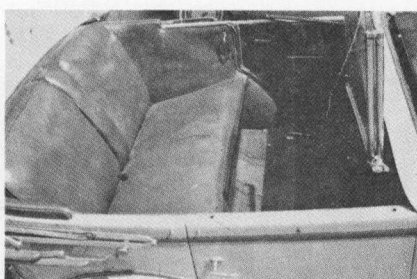


Illustration No. Ma-18

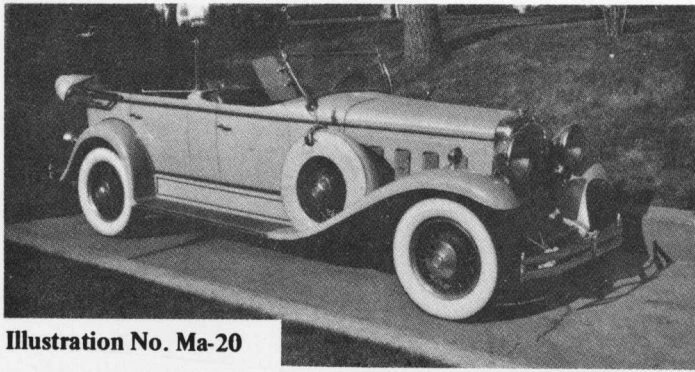
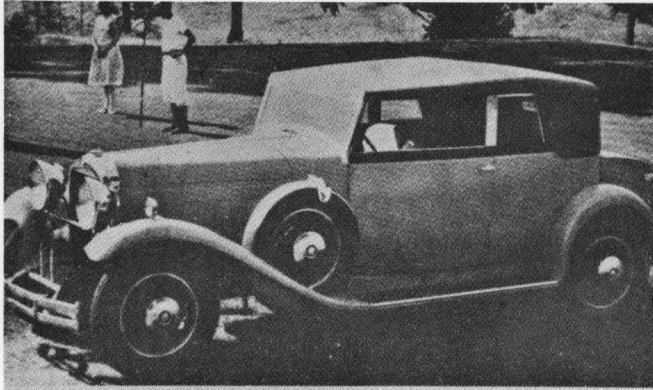


Illustration No. Ma-20



MARMON BIG EIGHT BY LOCKE

The Grand National Sportman's convertible sedan on a Marmon big eight chassis powered by a 125 h.p. straight eight engine

Illustration No. Ma-21

The last contribution to the Marmon line by Locke is a 1931 two-door convertible sedan. This design had an unusual story behind its birth. Mahmoud Sabit Bey of Cairo, Egypt, had long been a Marmon admirer. To his personal specifications, Locke designed and fabricated a special convertible sedan on the big 8 chassis with 125 h.p. straight-eight engine, and with a 40-inch door for easy access to the front and rear seats. Marmon liked it so much that it commissioned Locke to produce the car for American customers as the "Grand National Sportsman's Convertible Sedan"—Illustration No. Ma-21.

Fitments were of stainless steel or chromium plated, and a radio aerial was installed in the close-folding top. The model exhibited in the Chicago Auto Salon that year was finished in Valentine's Morocco Maroon trimmed with Burmah Rose. The top was of Aerial Teal and the large trunk over the fuel tank was covered with the same material.

The esteem in which this design was held is illustrated in a full-page ad in the *Saturday Evening Post* for October 18, 1930, Illustration No. Ma-22.

Marmon passed into bankruptcy in 1933, one year after Locke closed up shop, thus ending another partnership of beauty.

MARMON

PRESENTS A NEW CUSTOM SERIES

As a further step in its fine car program Marmon, collaborating with the finest custom builders, presents at the New York and Chicago salons and at leading Marmon establishments a new series of distinguished custom creations.

Illustrated—Marmon Grand National—Sportsman's Convertible Sedan for five passengers. Marmon Big Eight chassis. Body by Locke.

MARMON MOTOR CAR COMPANY, INDIANAPOLIS

Illustration No. Ma-22

PIERCE-ARROW

There is reason to believe that Locke & Company designed and fabricated occasional bodies for individual customers on a strictly custom basis in the pre-Classic years. However, definite identifiable examples have not been located.

For the 1929 New York and Chicago Automobile Salons Locke exhibited a quite handsome Gentleman's Sport Sedan on Pierce-Arrow chassis, Illustration No. P.A.-1.

This model featured several innovations. Door construction above the belt-line was replaced by chromium plated glass channels and the top was a Haartz-Jonarts

double-coated fabric which was also used for the trunk cover.

The interior was of a conventional arrangement except that the luggage space in the large trunk was located behind the rear seat, accessible by pulling the back "squab" forward.

The body was finished in two shades of green with a touch of Coronado tan on the window reveals and wire wheels. De luxe broadcloth was used in the interior, piped with green leather, and the appointments were painted to match that leather.

No existing examples of this car have been located.

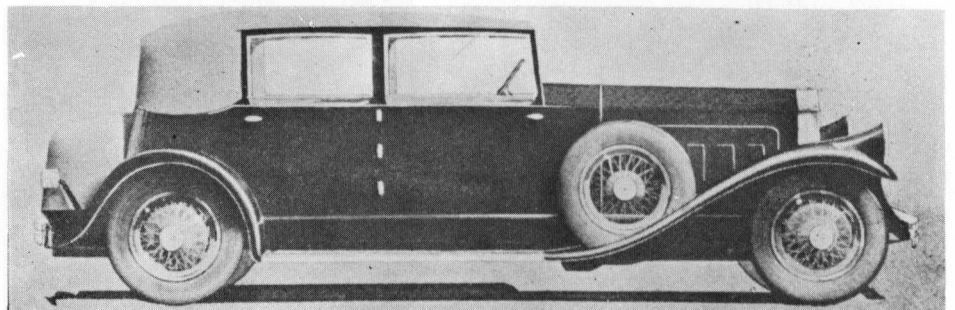


Illustration No. P.A.-1

Buffalo Distributor Stages Attractive Custom Car Salon

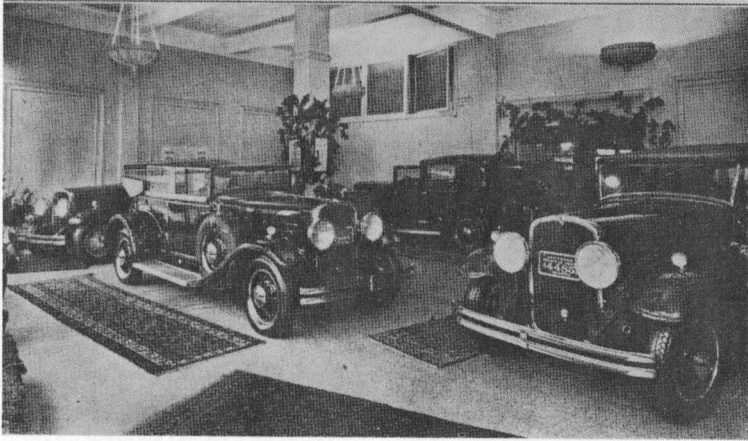


Illustration No. F-2

FRANKLIN

As the H. H. Franklin Manufacturing Company of Syracuse, N. Y. approached the beginning of the Classic car era, it faced a continually increasing flood of criticism, largely from its dealers around the country, directed at the somewhat "dated" appearance of its otherwise excellent automobile.

While Herbert H. Franklin had been head of the company since its inception, his time was largely devoted to executive and financial matters. Although it is not clear who was responsible for styling, according to Thomas H. Hubbard, noted Franklin expert and author, "John Wilkinson was the real designer of the Franklin and he was a no-nonsense engineer who had for twenty years enjoyed total control over the design of Franklin cars" (quoted from a letter from Mr. Hubbard to me of April 3, 1978). Traditionally, all complaints and suggestions were routed directly to Wilkinson and the engineering department,

MINERVA

Also in 1923-1924 at the Foreign Automotive Association and the New York Salons, Locke exhibited on the Minerva chassis. These were designed by Paul Ostruk and fabricated by Locke. The Town Car Brougham attracted special attention at the New York Auto Salon, according to *Autobody* magazine, and was done in shades of greenish gray. It had the top leather extended at the front to form a curved visor for the angular-type windshield. "A pleasing effect was obtained with a Wiese broadcloth in the Locke Brougham on Minerva chassis, the green and gray color scheme being carried out by the broadlace on a plaited door panel of Lustre weave broadcloth".

ment, and styling criticism apparently received short shrift.

H. H. Franklin was not completely in the dark however, and to quote Tom Hubbard again, "Finally, dealer pressure on H. H. Franklin over the issue of style—or, rather, the lack of it—caused Franklin to break with tradition and (he) personally hired J. Frank deCausse to create a new style. When it was accepted, Wilkinson, then vice-president, resigned. Franklin and Wilkinson lived two doors apart on James Street in Syracuse, but they didn't speak for the next twenty years".

Here it should be noted again that J. Frank deCausse was an able but eccentric free-lance stylist and designer who never had a shop of his own. Accordingly, his designs had to be reduced to working plans and specifications and then fabricated by others. Due to the popularity of deCausse's designs he was retained as the head of the Custom Department at Franklin.

Noted designer with Locke and others, Rudy Creteur, of Long Island, told me an interesting story about deCausse which happened at about this time. When the news of deCausse's designs for Franklin and his new position with the company became public, the industry (including Locke & Company) was stunned by the filing of the lawsuit by Locomobile against deCausse and others described in the first part of this article on the history of Locke & Company.

At any rate, engineering and fabrication of the new Franklin lines brought H. H. Franklin in contact with Locke & Company and other leading custom body firms. The years 1929, 1930 and 1931 were Locke's "golden era" with Franklin.

The designer's rendering, **Illustration No. F-1** shows the widely-admired Locke

Franklin convertible sedan which was exhibited in 1929 at the various auto shows and salons during this period. **Illustration F-2** shows the 1930 model (note change to horizontal hood louvers) at the Buffalo Distributors' Custom Car Salon in October, 1930, with the top down. Tom Hubbard estimates that not more than a dozen were made.

Autobody magazine, writing on the New York Auto Salon in 1929, describes this "close-coupled convertible sedan" as finished in rich maroon with fenders, brake drums, and reveals in Devonshire Cream. Seats were upholstered with Wiese buff Bedford cord and the rest of the interior was trimmed in Radel's mottled maroon leather. The center pillars of this convertible drop vertically into a well between front and rear doors when not required. They were made of stainless steel and spring controlled so that when not in use they were flush with the surface. Each pillar carried a light set in, thereby providing better reading light and permitting a narrower bow at the rear. The header was stainless steel "which fitted over the top material and was rolled up with it".

Locke chief designer John Tjaarda also submitted two other attractive designs for the 1930-31 Franklin line, **Illustration No. F-3**, a soft-top coupe, and **Illustration No. F-4**, a 7-passenger formal sedan, both with sidemounts and trunk rack. I have found no record indicating that these designs were executed.

I have been unable to locate any existing Locke-bodied Franklins and would welcome any such information.

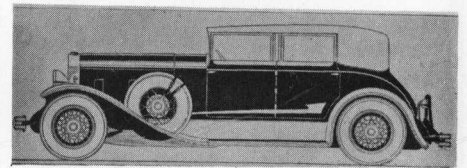


Illustration No. F-1

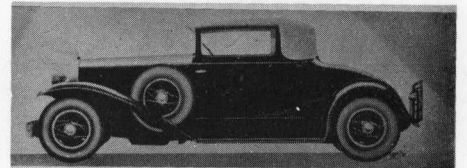


Illustration No. F-3

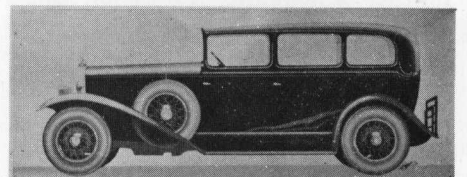


Illustration No. F-4

LOCOMOBILE

The Locomobile Company of America closed its doors in 1929. For most of the last seven years of its long history it was controlled by William Crapo Durant as part of his last automotive empire.

While the Models 48 and 90 continued to be produced until the end, most of its facilities were employed in making the

new non-Classic Flint (see photo of the 1925 Model E55 "big" Flint touring, restored and formerly owned by the writer, in *"The Complete Encyclopedia of Motor cars"*, by Georgano, E. P. Dutton, 1968, page 225).

The last trade journal mention of any Locke-bodied Locomobiles I have been able to find is an article in *Autobody*, for November, 1923. There it states that the

new Standard Locomobile town brougham bore a body designed by LeBaron and executed by Locke & Company of New York City. This car was exhibited at the New York Auto Salon at the Commodore Hotel and the Importers' Show at the Astor. I believe it may fairly be inferred that this model was available until the end in 1929 although I have not been able to identify positively any pictures.

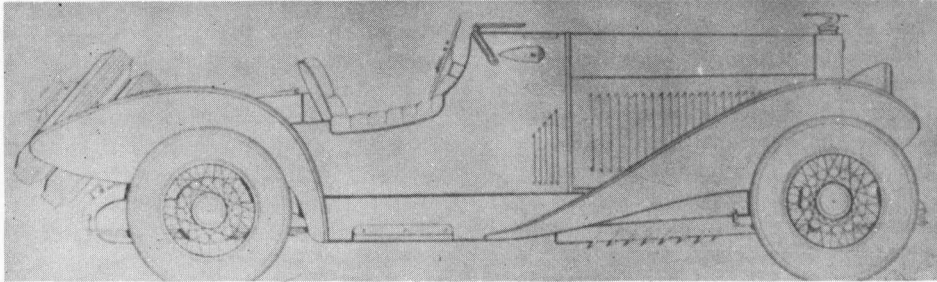


Illustration No. HS-1

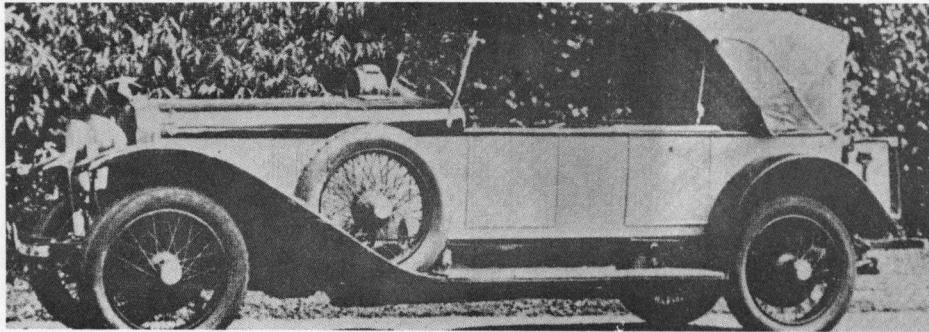


Illustration No. HS-2

HISPANO-SUIZA

During the last half of the twenties, Locke & Company fabricated the LeBaron designed Special Sport Runabout previously pictured in *"The Classic Car"*, vol. VI, No. 3, on the 124" Hispano-Suiza chassis (capable of 110 m.p.h.), shown in **Illustration No. HS-1**.

The rakish Hisso dual cowl Tourer that is shown in **Illustration No. HS-2** dates from this period and has been included in the 1977 book, *"The Legendary Hispano-Suiza"* by Johnnie Green, Watson Dalton, Inc. Note the sidemounts, massive spotlight, trunk, two-color exterior paint combination and collapsible coaching-brougham style top over the rear seat only. Locke designed and fabricated this car in its New York City shops for an unknown client.

HOTCHKISS

As appeared in the first part of this article, Locke & Company became the sole distributor of the French Hotchkiss shortly after World War I. It also designed and fabricated custom bodies for this marque which it consistently exhibited at the Foreign Automotive Association Salons and elsewhere. **Illustration No. H-1** is taken from the November, 1923, issue of *Vanity Fair* concerning the 1923-24 Shows and Salons, and is the last indication I have cated of the Locke-Hotchkiss connection.

In this ad, Locke & Company is no longer mentioned as a Hotchkiss dealer or distributor, so it may fairly be concluded

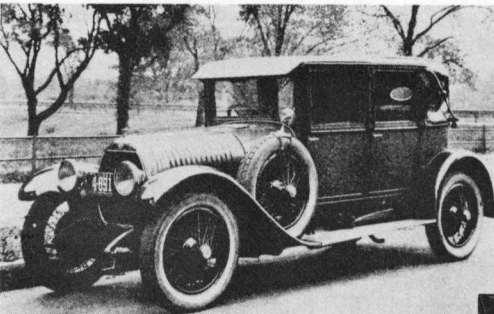
"BODY BY LOCKE"

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FOREIGN
MOTOR CAR
SHOW

HOTEL ASTOR
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Locke Bodies will appear
on the newest chassis of

Hotchkiss
Rolls-Royce
Locomobile
Minerva



AT THE
AUTOMOBILE
SALON

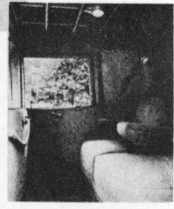
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LOCKE & COMPANY
INCORPORATED

453 EAST 56TH STREET
Motor Coachwork
NEW YORK CITY



Comfort and Quiet Luxury

Illustration No. H-1

this relationship had been terminated by 1924. Also it may fairly be concluded that imminent orders from Lincoln, Chrysler,

Marmon and other American Classic firms were expected to require almost total concentration at the Locke facilities.

ISOTTA-FRASCHINI

As indicated in the first part of this article, the New York City facilities of Locke & Company during 1925-1932 were devoted almost entirely to custom, individual order, "one-off" and salon coachwork, and maintenance and repair of custom-built cars. There is evidence of such work produced on the chassis of the four European marques shown above, but understandably records are scarce at this date, 46 years after Locke & Company closed its doors.

Illustration No. IF-1 is the factory blueprint of an impressive 4-door touring sedan on Isotta-Fraschini chassis for a Mr. C. W. Nichols. From its design number, Locke 202 D, one may conclude that this sidemount, trunk-equipped model was executed in late 1926. The blueprints also indicate hinged arm rests in the center of both front and rear seats.

Illustration No. IF-2 is a picture from *Autobody* magazine, February, 1927, of a special design for Isotta Motors of an all-weather landaulet on an Isotta-Fraschini chassis, being Locke design No. 204 D, dated January 6, 1927.

The use of a lighter color at the door sills and the top of the passenger section above the belt line, as well as below the sweeping moulding from the radiator cap to the base of the cowl, added a debonnaire touch to the normally severe town car concept.

Various positions of the Landaulet collapsible top, the removable solid roof section over the front seat, and the rear compartment side windows are shown in blueprints captioned **Illustrations No. IF-3, 4 and 5** below.

Later in the twenties came Locke & Company design No. 300 A, a special cabriolet on Isotta-Fraschini chassis Type 8A, shown in **Illustration No. IF-6**.

A four-door "coupe" on Isotta chassis was exhibited at the New York Auto Salon in late 1926 to early 1927, with "clear vision" corner pillars and a raised panel on

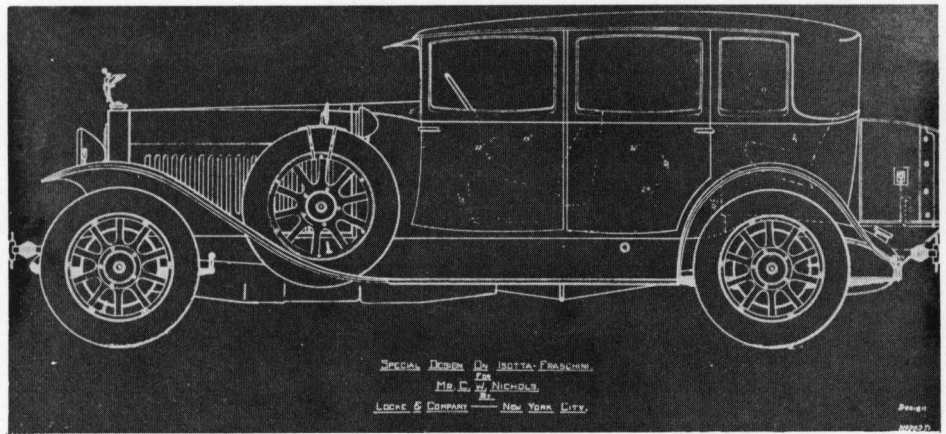


Illustration No. IF-1

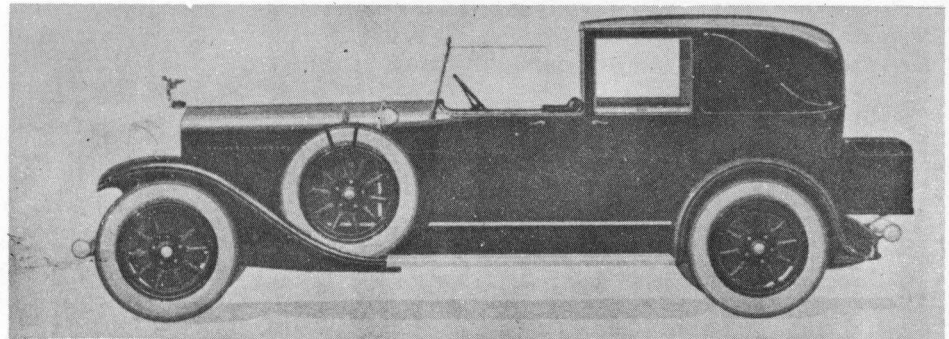


Illustration No. IF-6

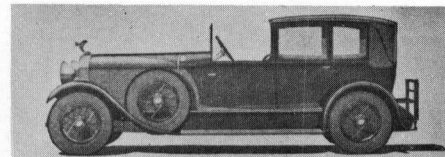


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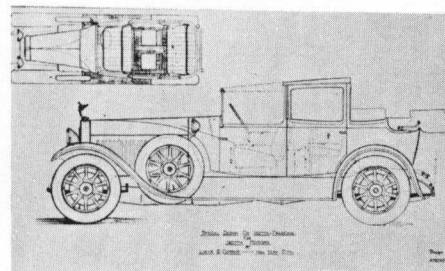


Illustration No. IF-4

the cowl and engine hood. The bottoms of the doors were curved in the European manner. The front seats were adjustable and trimmed with soft leather. Above the belt line the car's interior was trimmed in broadcloth matching the glove-finish leather. The bows of the roof structure were left in natural wood as was also the trim on the door panels and instrument board. The exterior color scheme was in two tones of gray. No pictures have been found.

Also at the same New York Auto Salon Locke exhibited a sport sedan on Isotta chassis with "unusual wood trim". In the door panels there were wide fillets curved on the inner edges so as to leave a square panel with concave sides. Again, no pictures have been found.

Other Sources, References and Credits:

James R. Bradley – *National Automotive History Collection, Detroit Public Library, Detroit, Michigan*

George H. Damman, "70 Years of Chrysler"

George P. Hanley

David R. Holls

Harrah's Automobile Collection, Jim Edwards

Katie Robbins

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Automobile Quarterly, "World of Cars"
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G. Gregory Fauth

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Automobile Topics Magazine

Robert F. Arnold

Ford Archives, Henry Ford Museum, Dearborn, Michigan; David R. Crippen Chrysler Corporation Archives

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XM-Turnpike Cruiser is not merely a "dream" car. It is a full-scale, fully operative automotive styling laboratory dedicated to the specific task of pioneering, testing, and perfecting new ideas in design, new features, new safety and new power application.

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Dramatic is the word for this comparison of width and height of the XM-Turnpike Cruiser. This new, broad, low-silhouette design was specially created to provide the utmost in driving pleasure and comfort on America's new network of ultra-modern highways.

Pages one and three of a leaflet (Form No. M56-109) issued to describe Mercury's "butterfly" top show car mentioned in this issue by Jim Petrik.

Automotive History Review
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Fall 1981
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