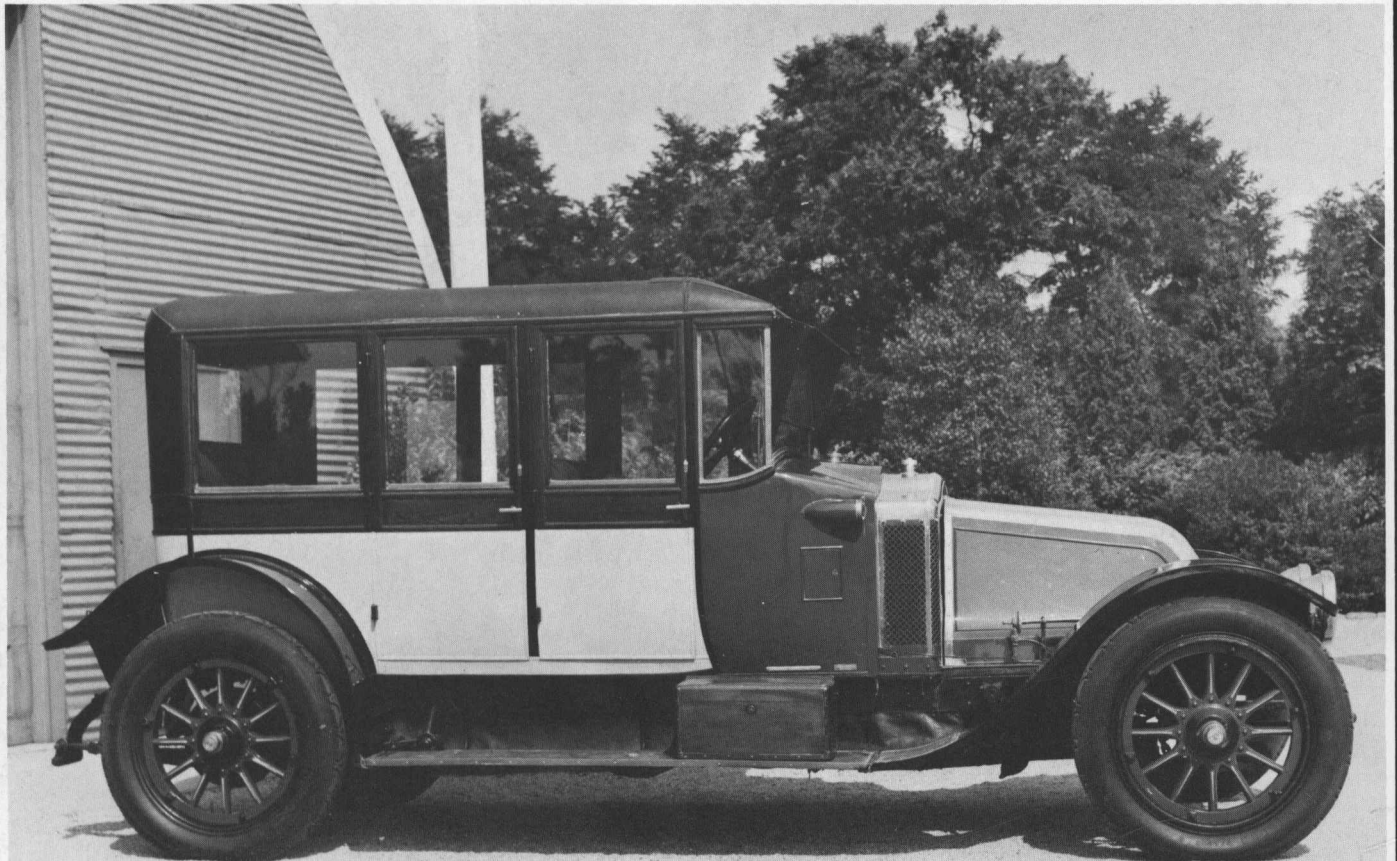


*The Society of
Automotive
Historians*

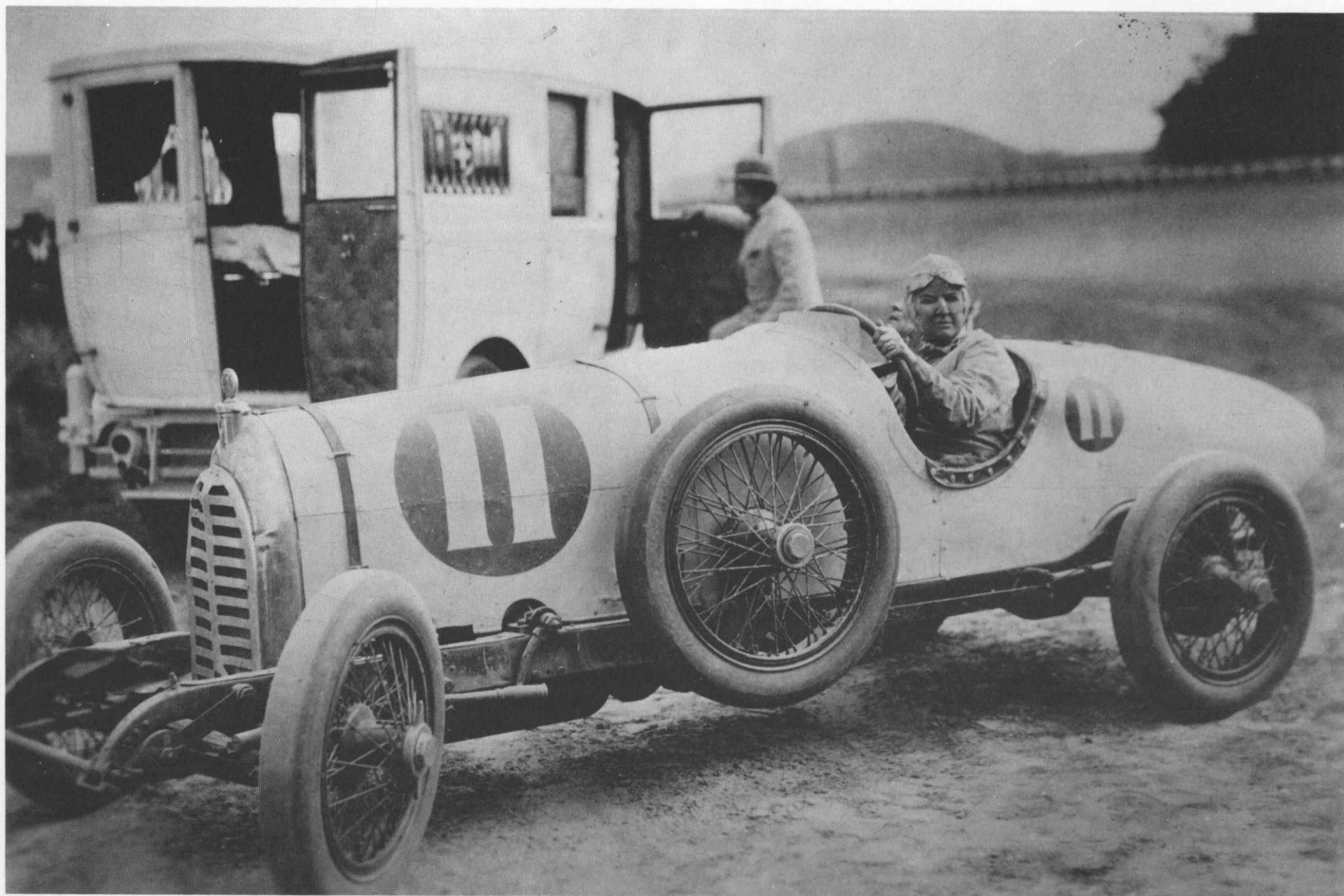
AUTOMOTIVE HISTORY REVIEW

SUMMER 1980 - ISSUE NUMBER 12



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ANTIQUE AUTOMOBILE CLUB OF AMERICA
NATIONAL HEADQUARTERS
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A PUBLICATION OF THE SOCIETY OF AUTOMOTIVE HISTORIANS, INC.



There seems to be an inexhaustible supply of photos of cars which present puzzles in identification. These two are from motion picture studio files and are clear proof, if any is needed, that things are not always what they seem to be. Look very carefully at the touring car before you decide what it is. The racing car is notable for being doubly disguised. Close observation reveals it as one of the cars raced as

Reveres about 1920. The movie people have added a spurious grille and a spare wheel to confuse us. But under this cosmetic disguise, another layer can be peeled off, and removal of the Revere-styled radiator would reveal the true identity of the builders to have been the Duesenberg brothers. Is the driver looking around for support from Janet Guthrie?

Photos: Frederick D. Roe Collection, via Lassiter Hoyle and Don Howell

A PUBLICATION OF



The Society of
Automotive
Historians INC

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Automotive History Review is a quarterly publication of the Society of Automotive Historians, Inc. Type setting is by AZTEX Corporation of Tucson, Arizona. Printing by Walter Snyder, Printer, Troy, New York. Layout and design by John M. Peckham.

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AUTOMOTIVE HISTORY REVIEW

SUMMER 1980

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CONTENTS:

From The Editor	2
From The Readers	2
Locke & Company	3
America's Greatest Automotive Figures	9
A Singular Car - The Carroll	13
Fuller of Kalamazoo	15
Book Talk	20

Front Cover: Locke & Company, New York, built the body of the 1912 Renault that is pictured on our front cover. The car was formerly owned by Henry Austin Clark, Jr.

Photo: Long Island Automotive Museum

Further information about the Society of Automotive Historians, Inc., may be obtained by writing to the Society of Automotive Historians, Inc., c/o National Automotive History Collection, Detroit Public Library, 5201 Woodward Avenue, Detroit, MI 48202.

From the Editor

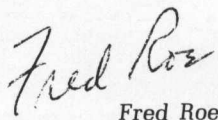
As your new editor, taking over early in our Society's second decade, I consider it a privilege to be successor to Dick Brigham. I look upon the job as a challenging opportunity to maintain the standards he has set through the last ten years as originator and editor of both the Newsletter and this magazine. Dick, always ably assisted by his indefatigable wife Grace, functioned as editor and publisher of nearly thirty issues of the Newsletter and of ten issues of *Automotive History Review* almost alone, assisted spasmodically by some of us in various ways. Within the past year steps have been taken to provide more assistance to the editors and the Publications Committee has been activated. This can only help to make the job easier than Dick found it to be, and I begin with this advantage.

The Society is a unique organization. It was founded by people who wanted to help each other through communication and this remains its goal. Essentially all its members are hobbyists, although some are professionals who derive income from their interests, and they share one trait above all others, a curiosity to uncover and preserve more and more information on the wide range of subjects which make up the history of automotive transportation. Our unique strength is cooperation in communication while most other automotive groups thrive on competition. All of us are helping ourselves and our fellow members when we communicate through the pages of our publications, through our chapter and national meetings and through personal contacts.

Automotive History Review is a major channel for this kind of communication. My aim is to provide with your help a magazine which will stimulate further research by airing your provocative questions, will assist researchers with helpful material on sources and techniques and will above all contain a balanced content of finished work interesting to amateur and professional historians alike.

In the last issue John Peckham and Chris Halla contributed a guide showing how material should be typed for presentation to an editor. This represents an ideal which every professional editor hopes his contributors will follow. If you have an article which you want me to consider for the Review, please send it to me regardless of whether you have a typewriter or not, and do not be put off by the publication of these guidelines. Certainly I would like everything to reach me in such fine form but if you can't get it typed send it anyhow and let me worry about. While John's observations about handwritten copy are entirely correct, I am willing to make an occasional exception, while I am editor.

I would like to make one request of contributors and this is that they supply a brief paragraph on themselves, something comparable to those appended to the articles in this issue.


Fred Roe

From the Readers

To The Editor:

Issue #11 of the *Automotive History Review* (Winter, 1979) contained a short article of mine dealing with the adaptation of Riker Trucks for use on the rails. I am sorry to say that somewhere in the process of preparing my manuscript for publication, several words were inserted which altered the meaning of the point I was trying to make. The offending phrase (which appears on page 9) reads as follows: "Meanwhile, the army became increasingly convinced that the only solution to its logistical problems lay in the *crazed idea* of securing control of the Mexican railways by persuasion of possible by seizure if necessary." In my original text, I never referred to the suggested seizure as "a crazed idea." And, in fact, this insertion in no way reflects my thinking about the move.

True, with the inestimable advantage of hindsight on our side, we can now see that the Punitive Expedition as a whole was a slightly crazy undertaking. However, to a nation committed to such a course of action - as America was committed in 1916 - seizure of the rail system in Northern Mexico constituted a viable military tactic which might very well have helped the AEF solve its supply problems. Given the circumstances of 1916, it was by no means a "crazed idea."

Sincerely yours,
L. J. Andrew Villalon

Mr. Elliott Kahn, 58 Verbena Street, Clearwater Beach, FL 33515, in a wide ranging letter to the editor compliments us on the new appearance of AHR #11 but points out what he considers to be an error in Mr. Villalon's essay, "Locomotive's Locomotive." The opening sentence of the third paragraph reads "In 1912 Locomobile added a truck to its line." Mr. Kahn notes that Locomobile offered commercial vehicles at least as early as 1908 and that while these were based on the passenger car chassis nevertheless as load-carrying units they constitute evidence that Locomobile was in the truck business before 1912. Therefore, he feels that the adjective "heavy" is needed in this sentence to qualify the larger 1912 truck as an addition to an existing range of commercial vehicles rather than as a new venture in the field.

Mr. Villalon's reply follows.

To the Editor:

I am responding to Mr. Elliott Kahn's criticism of my short essay "Locomotive's Locomotives" which appeared in the issue of the AHR for Winter, 1979.

First of all, I would like to thank Mr. Kahn and, for that matter, Messieurs Frank Robinson, Fred Roe, and Robert Scoon, all of whom have given me valuable suggestions concerning future research into the adaptation of motor vehicles for use on railway lines.

Nevertheless, I must take issue with Mr. Kahn's criticism of what he characterizes as an "error" in my essay. I wrote that "In 1912, Locomobile added a truck to its line." Mr. Kahn alleges that, in order to be correct, this statement would have to be amended to read, "In 1912, Locomobile added a heavy truck to its line."

Why have I chosen to reply to this criticism? Probably, at first sight, it seems minor enough, involving only the addition

continued on page 14

Locke & Company

Custom Body Builder, 1902—1932
New York City and Rochester, NY.

By Harold H. Emmons, Jr.

Mr. Emmons' article was originally published in *TORQUE*, magazine of the Michigan Region of the Classic Car Club of America, November-December 1978 issue. I think this is the first time that the Cugnot certificate has been awarded to an article from a club publication and it seems appropriate to reprint it here for the benefit of our members most of whom might otherwise miss seeing it and because it is a fine piece of research on a company which has previously been overlooked. This is only part one; our next issue will continue with the extensive selection of photos of Locke bodies on makes of the classic era.

We are indebted to Mr. Emmons, L. Kirk Walters, editor of *TORQUE*, and the Publications Committee of the Michigan Region, CCGA, for their permission to use this material.

Brief Historical Profile

As the 19th century drew to a close, the streets of Paris, London, Lisbon and Madrid carried many examples of elegant horse-drawn coachwork designed and produced by the venerable coachbuilding firms for the Royalty, other titled persons and those occupying high positions in politics and finance. More often than not, one's position was stated by the opulence of one's means of transportation; and many of the interiors call to mind the Grand Salon or the boudoir rather than simply a means of getting from here to there comfortably.

The recently perfected "motor vehicle" was beginning to appear in increasing numbers, so it was inevitable that the

rich designs and styles should be carried over from the coach and applied to it. Stunning examples of the coachbuilders' art at that time (horse-drawn as well as steam- or gasoline-propelled) can be seen today on the Continent particularly at Chateau de Rochetaillee near Lyon, France, Museum of Coaches in Lisbon, Portugal, and several other museums in and around Paris. In England, many private collections and museums exhibit these vehicles.

One outstanding example, on display at Chateau de Rochetaillee, is illustrated in *Illustration 1* — a French 1908 Brasier Coupe de Ville; upholstered in light green tufted silk. Note the rich tufted leather treatment in the front compartment, and fine exterior finish and detailing.

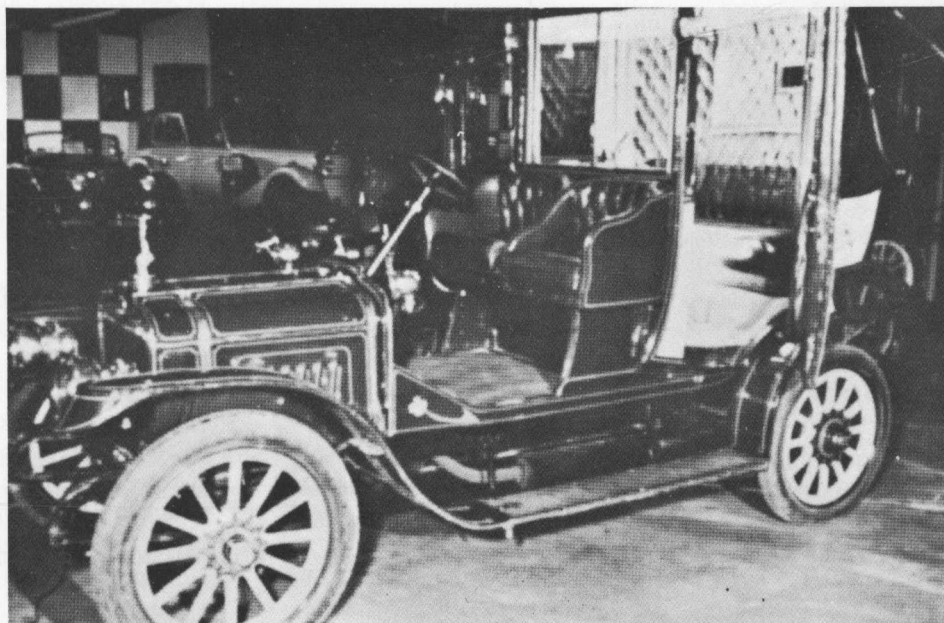
The United States was far behind in making the transition. Here, the motor vehicle was largely a rare "toy" of the wealthy, or a racing machine. However, several distinguished coachbuilding firms (mostly along the East coast) were observant of the developments abroad and slowly made preparations to enter the motor vehicle field in competition with foreign products being imported at an increasing rate by or for the wealthy and influential. The "chauffeur" became a necessity and often also served as mechanic and maintenance expert. The "footman" of carriage days accompanied the chauffeur and took care of opening doors, assisting the passengers into and out of the car, carrying parcels, luggage, etc. These two men occupied the front seat and often had little protection from the elements—just as in horse-carriage days.

Two leading American coachbuilding firms at the turn of the century were Healy & Company of New York city and A.T. Demarest of New Haven, Connecticut. Each company at one time or another employed a young apprentice named Justus Vinton Locke.

The obituary shown in *Illustration 2* is taken from the May, 1925 issue of *Autobody* magazine. It should also be noted that Locke was a founder-member of the Automobile Club of New York.

While an obituary may seem an unorthodox way of beginning an article, it offers a brief preview of a very "private"

Illustration 1



J. Vinton Locke

Justus Vinton Locke, one of the leading custom body builders of New York, died on April 16, 1925. He was 62 years old, having been born in Watertown, Mass., March 2, 1863. While he was still a child, his family moved to New York where he spent the greater part of his life and achieved a notable success in his chosen field, producing some of the finest examples of motor coachwork made in this country during that period.

After graduating from Hamilton College, he entered the employ of Healey & Co., where he learned the rudiments of the coachbuilding trade under the direct supervision of Mr. Healey. He was subsequently employed by Demarest & Co., ultimately becoming superintendent of their plant. Impressed by the growing importance of the automobile, he organized in July, 1902, with E. P. S. Wright and others, the body-building firm of Locke & Co., Inc. From its inception, he was manager and vice-president; following the demise of President Wright, Mr. Locke was elected president and manager and so remained until his death. His keen artistic sense and ripe judgment were perhaps best revealed in his town-car bodies which were always noteworthy exhibits at the Automobile Salon and other exhibitions in which his firm participated. The business of Locke & Co., Inc., at 453 E. 56th St., New York, will be continued by the present members of the organization.

Mr. Locke was a member of the New York Motor Coach Manufacturers Association, and was treasurer of the Foreign Automotive Association. His genial personality made him many friends in the body-building industry as well in the other organizations to which he belonged. He was a former member of the Seventh Regiment of the New York National Guard and was also a member of the Lotus and New York Athletic Clubs. He is survived by a widow, Mrs. Elizabeth Doty Locke, and by two brothers and a sister.



J. VINTON LOCKE

Illustration 2

man who founded the highly-respected custom body firm which bore his name. He did not actively seek publicity for his company or for himself. He seemed content to "rest upon the merits" of his creations, hence trade publications during his life contain few releases to the press.

Vinton Locke's philosophy seems to be well-stated in a brochure apparently issued by the company after his death, pertinent parts of which read as follows:

"Twenty-one years ago Locke & Company was founded to build smart carriages for New York aristocracy and for twenty-one years it has been doing just that. The motor-powered runabouts, broughams, coaches and cabriolets have changed from horses to gasoline engines, but today a motor car with a body by Locke means exactly what a Locke meant two decades ago: the highest standard obtainable, and elegant and beautifully constructed personal vehicles.

Every motor carriage by Locke is one of our own special designs to conform precisely to the particular ideas and requirements of the motorist of discernment. In lines, coloring, striping, upholstery and fittings, meticulous care is employed to produce in each vehicle the embodiment of good taste and beauty without sacrificing the progressiveness of the most modern ideas in motor car fashion. And, of course, the quality of Locke workmanship extends to every hidden part.

"Two large plants are maintained, one in New York and the other at Rochester, so that orders may be executed in the minimum of time consistent with the strictest attention to every detail of building and fitment. Both plants are manned by experts trained in this special work and both are completely equipped for the finest upholstery and metal work, painting and all the other operations that enter into the construction of superb motor cars.

"One of the main activities of Locke & Company is in the repairing of motor car bodies. In this work we have established an enviable reputation, and cars we repair leave our shops with the most satisfying appearance of newness and smartness. A considerable number of our customers have their cars entirely redone every year and thereby obviate for many seasons any necessity for buying new chassis. . . .

"We shall be happy to submit special designs for motor car bodies incorporating your own desires in style, colors and fittings. A Locke motor carriage will be a source of unending pride to you. . . ."

Rolls-Royce, Hotchkiss, Minerva, Stevens-Duryea, Locomobile, Packard, Pierce-Arrow, Lincoln, Marmon, Stutz, Chrysler "80" Imperial and "75," Duesenberg Models J and X, Ruxton and Wills Ste. Claire—these names represented a truly prestigious group of clients. This was Locke & Company.

In its early years, Locke & Company was noted for its limousines and town cars, designed and fabricated in conservative, quiet, luxurious good taste. In these times the final exterior finish (over the color) was varnish and, as historian Hugo Pfau noted in *"The Custom Body Era"* (A.S. Barnes, Inc., 1970), a properly maintained town care as repainted at least once every year, especially if it had spent the winter in the salt-laden air of Florida. These magnificent motor vehicles were largely "one-off" designs, conceived for and built to the personal preferences of the client and intended for years of proud and comfortable enjoyment. The oldest existing Locke-bodied car I have been able to locate is the 1910 Packard 30 limousine belonging to Dr. Orland Wiseman in California, followed closely in point of time by the 1912 Rolls-Royce Silver Ghost limousine of the Consolini family in Connecticut. Both of these vehicles are in original condition, testifying to the quality of their design and fabrication. Both will be pictured and described in the respective sections of this article on each marque.

Locke felt that its clients were entitled to expert and accessible after-market maintenance and repair services. Therefore, its facility at 437-453 East 56th Street (at Sutton Place), New York city, was equipped and staffed for both purposes.

The original Certificate of Incorporation date June 18, 1902, was filed by the incorporators and the first board of directors, Elisha P.S. Wright of Short Hills, New York and 33 Union Square, New York City, Carrie E. Wright of Short Hills, New York, and J. Vinton Locke, of New Rochelle, New York. Capital stock in the amount of \$50,000 at \$100 par value per share was authorized. In 1910 this was increased to \$75,000; and in 1911 the stockholders (in addition to Locke and the Wrights, now living in Florida) included Thomas F. Dann, William C. Miller, Alfred H. Taylor and Louis R. Smith. Between 1911 and 1917, although Mr. Wright had died and the

Charles Maximilian Fleischmann

President, Locke & Company, automobile body builders,
450 East 56th Street, New York City, and 40 Greenleaf Street,
Rochester, N. Y.

Residence, Morristown, N. J.

Fleischmann was born in New York City on June 14, 1883, the son of Maximilian Fleischmann, who was born in Austria, and of Johanna (Muller)



Fleischmann, who was born in Germany. He received his preparatory education at the Cutler School in New York. He took the select course in Sheff.

Fleischmann's marriage to Alice Dumont, daughter of Robert Dumont Foote, Harvard '86, a banker, and Marie Gilmour (Hopkins) Foote, took place in Morristown on June 29, 1912. They have two children, both of whom were born in New York, Charles Foote on May 12, 1916, and Nancy Lathrop on July 23, 1922. The son attends the Peck School in Morristown.

Fleischmann was admitted to the New York Bar in 1909 and soon afterwards became a partner in the law firm of Jackson, Arnold & Fleischmann, the other members of which were Frederick S. Jackson, Yale '96, and Louis H. Arnold, '04. Mr. Arnold later withdrew from the firm, the name of which was then changed to Jackson & Fleischmann. After the war Fleischmann returned to the practice of law for a time, but about 1922 he became secretary and treasurer of Locke & Company, automobile body builders. He has been president of this concern since May, 1925. He is also a director of the National Iron Bank. He is a member of the University, Yale, and Leash clubs in New York City, the Morris County Golf Club, the Morristown Club, and the Whippany River Club, all in Morristown, and the Genesee Valley and Country clubs of Rochester.

Fleischmann was commissioned as a Captain in the Air Service on August 27, 1917. He was sent overseas in December and, after serving for a time as sub-post commander at the Headquarters of the Air Service Replacement Barracks, Services of Supply, became commanding officer of the 8th Aviation Instruction Center at Foggia, Italy. He received an Italian War Service Medal and was made a *Cavaliere della Corona d'Italia* by the Italian Government. He returned to the United States on February 27, 1919, and received his discharge the next day.

Illustration 3

entire Wright interest in the company had apparently been disposed of, Locke & Co. had prospered, Charles M. Fleischmann had become chairman of the board, and further capital expansion of \$150,000 was authorized in January, 1917.

Fleischmann, destined to become the guiding spirit of the company a few years later, was described in *Illustration 3*, taken from the *Quarter Century Record (1928) of the Class of 1903*, Sheffield Scientific School, Yale University:

Long years after the demise, in the great depression, of all of the old-line custom body firms, Fleischmann passed

away in Camden, South Carolina, on July 23, 1969, in his 87th year.

In his college years Fleischmann showed a lighter side. According to the *Yale University Class Book of 1903*, he was affectionately known as "Horse," a student who preferred blondes and who often commuted, as it were, between New Haven, New York and, "to speak it softly," Bryn Mawr. While he was known as a hard worker when the job required it, he retained his "joie de vivre" even as chairman of the board. Rudy Creteur (chief designer at Locke, 1924-27) told me that Fleischmann often utilized spare moments at the office practicing his golf shots. He was an enthusiastic golfer but apparently not of championship caliber for some of his practice shots went astray through the large plate glass windows overlooking the shop, spraying glass to the natural consternation of the designers and craftsmen at work.

Following World War I, widespread demand for custom bodies on marques that we now call "Classics" literally ballooned. Already Locke & Company was an established distributor of the very fine French Hotchkiss (see *Illustration 4*), J. Vinton Locke often appearing as an officer of the Foreign Automotive Association that sponsored the Importers' Shows in New York City.

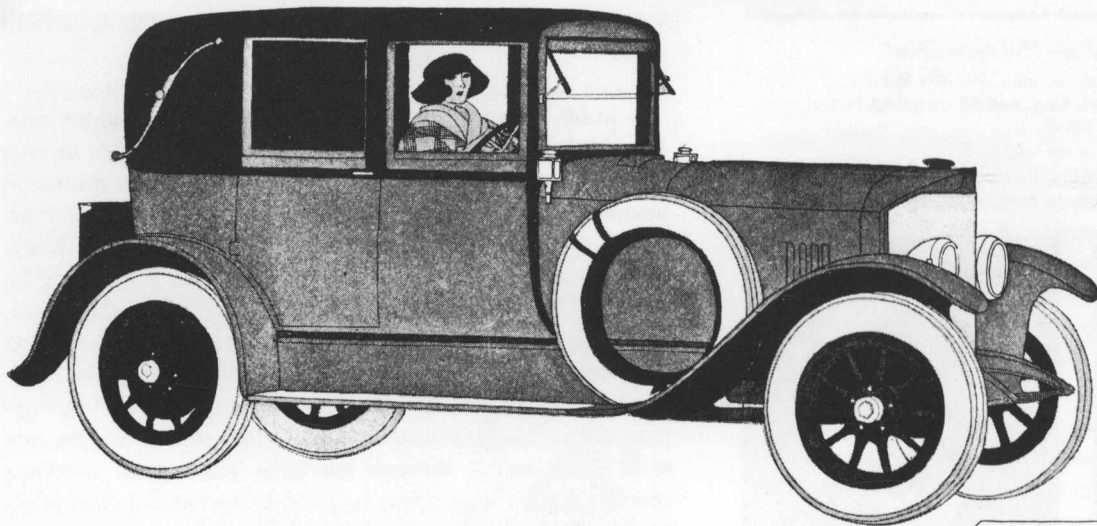
Reportedly Locke designed and fabricated special bodies on Hotchkiss chassis, but I have been unable to locate any examples. Fashion magazine *Harper's Bazaar*, ran four issues each year with a section featuring styles in clothing and motor cars. *Illustration 5* appeared in the February, 1922, issue showing a Locke Town Car on the short wheelbase Mercedes chassis. And *Illustration 6* appeared in the February, 1923, issue showing Miss Mable Gerry's Rolls interior by Locke.

Locke & Company was approached by Franklin for new designs; and Lincoln division of Ford Motor Company at Edsel Ford's initiative as well, a bit later, as Chrysler were developing an interest in establishing custom body lines. Locke's New York City quarters were woefully inadequate to handle the prospective volume. Regrettably at the time when J. Vinton Locke's life-long dreams were to become reality, he died on April 16, 1925.

Illustration 4

HOTCHKISS
AUTOMOBILE
THE FINEST FRENCH CAR

The motor car constructed with the same precision as the celebrated machine gun of the ARMIES OF VICTORY
Represented in America solely by
LOCKE & COMPANY
MOTOR COACH WORK
453 East 56th St. - New York City



The new Mercedes model is represented this year in their short wheel-base town car. The one illustrated below was shown at the Salon, with a maroon-colored Locke cabriolet body, and tan broadcloth upholstery. It is particularly well adapted to a woman's city use.

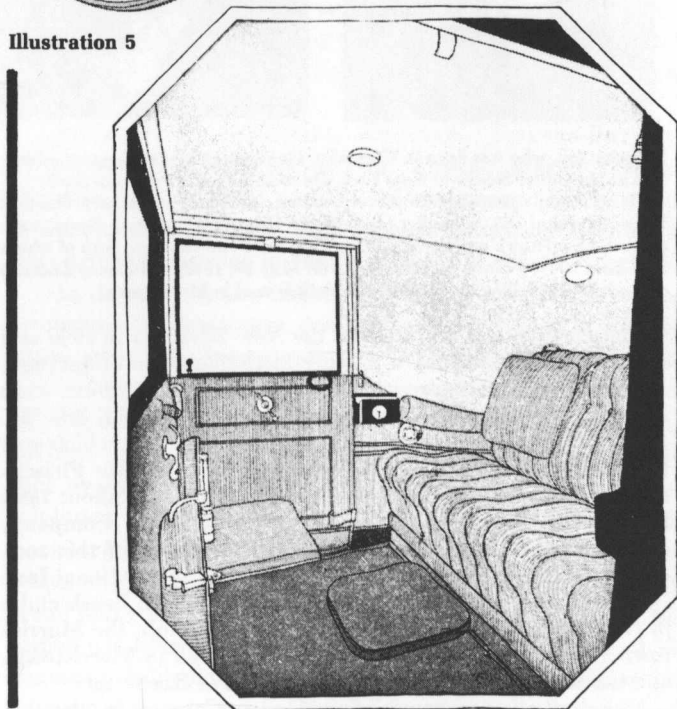
Under the leadership of Messrs. Fleischmann and William C. Miller, president and secretary respectively, and it's said with Fleischmann financial backing, the company vastly expanded its authorized corporate purposes, re-capitalized the corporation into common and voting preferred shares, and purchased a World War I surplus factory from the Symington Gun Company on Leighton Avenue at Greenleaf Street in Rochester, New York. The new location was much closer to what appeared to be sources of highly profitable business. Thereafter, the New York City shop continued its traditional functions of maintaining customers' automobiles and occasionally designing and fabricating individual custom bodies.

Staffing the Rochester branch called for several personnel moves. William C. Miller remained in New York City as the general manager. George Tasman, New York city chief designer, took over in Rochester, to be succeeded in New York by Rudolph W. Creteur, previously chief draftsman. Rudolph Creteur, now residing in Beechurst, Queens, Long Island, supplied me with a wealth of information concerning Locke in the years 1924—27. Richard Koplitz remained in New York city with Creteur. Duncan G. Stanbrough became chief of purchasing at Rochester, moving on to Briggs Manufacturing Company in late 1928, passing away on January 28, 1929. Special color artist Roland J. Stickney had come to Locke from Locomobile, and later moved on to LeBaron Carrossiers, Inc. Noted California designers Wellington Everett Miller and John Tjaarda (later of Lincoln-Zephyr fame) also joined the Locke staff. Tjaarda stayed with Locke until the end in 1932, by which time Miller had moved to General Motors. In recent years Miller has contributed much to the Floyd Clymer Scrapbooks.

Edgar Frank Miller (d. April 16, 1930) also served as a leading body draftsman with Locke before moving to Rubay and LeBaron. In 1928 John W.J. Ackermans came to Locke at Rochester from the Fremont Metal Body Company, serving as chief body draftsman. The December, 1929, issue of *Autobody* magazine contained a "personals" note illustrating the continuing interest of the company in foreign developments, which reads as follows:

"C.M. Fleischmann, president of Locke & Company, and Kenneth E. Coppock, chief engineer, returned early in November from Europe where they attended the Paris and

Illustration 5

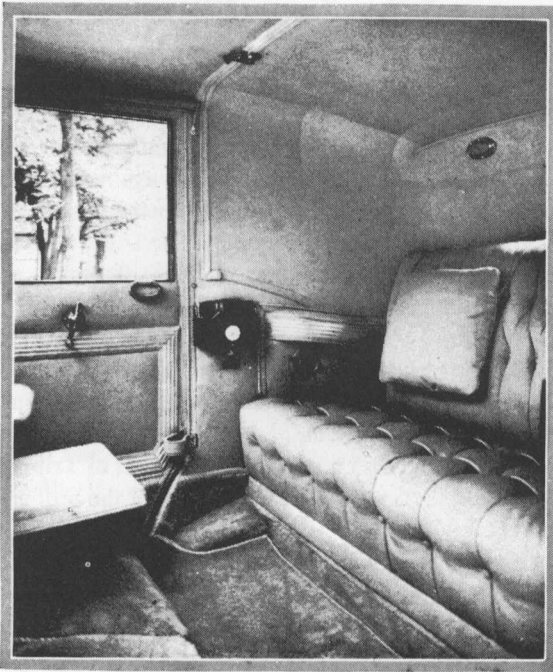


A pleasing treatment for a car interior, by Locke & Co., is shown in the body illustrated above. Here, a striped tan cloth, which has been used as upholstery for the seats, back, detached cushion, the two drop-seats, and the side cover-

ing below the window lines, is combined with an upper and overhead use of plain tan broadcloth. The window trim is of mahogany, also the silver-rimmed vanity and smoking cases. The door-pulls and levers are of tortoise shell.

Olympia shows and also visited some of the leading automobile and body building plants in England, France and Italy."

In the middle '20s Locke & Company also had a brief encounter with a widely-known and eccentric designer, J. Frank deCausse. This talented man never had a shop of his own, but was a free-lancer, so everyone thought. He was retained by H.H. Franklin to change completely the "horse-collar" Franklin to modern design and appearance. He did just that and designed a full line of beautiful cars, a number of which Locke was retained to reduce to working plans and specifications, and then fabricate. The finished products, clearly identified as deCausse styles, were just beginning to appear at the



MISS MABEL GERRY'S

Rolls-Royce cabriolet, with its Locke body (shown at left), has broad lace and tan broadcloth upholstery. The outside mounts of the car are brass, with gold plated hardware.

Illustration 6

auto shows to marked acclaim when the bombshell burst. According to documents filed in starting what resulted in bitter litigation, Locomobile all the while had deCausse under exclusive contract to design its new line. This could be a story in itself, but since Locke & Company was not directly involved, and since presumably the issue became moot with deCausse's untimely death from pleurisy in Paris on May 10, 1928, I have not pursued in further.

Locke & Company was one of the pioneers in the use of aluminum in body construction at least as early as 1910. Articles appearing in trade journals in the mid-twenties, particularly *Autobody* magazine, described at length a new alloy, "Duralumin," and its many uses. In short, it eliminated the casting process and made it possible to roll and die-form body panels in thinner sheets. Those of us with Locke-bodies Lincolns are especially familiar with this material. It should also be mentioned here that Duralumin in varying gauges and forms was later used in the William Stout-designed Ford Tri-Motor aeroplane as well as the ZMC-2 of the Aircraft Development Corporation (a division of Detroit Aircraft Corporation) which was the first metal-clad lighter-than-air craft. It served the U.S. Navy with distinction through World War II in coast patrol and submarine spotting over the Atlantic.

Locke & Company also had in its employ specialists in French cane. In the early days of the motor car the passenger portion of a town car was often covered with woven cane applied to the painted body with whatever adhesive was at hand at the time. This was a carryover, of course, from the horse-drawn era when so many formal carriages were so trimmed. Wet weather wreaked havoc on this style, for epoxies were unknown. So from France spread the

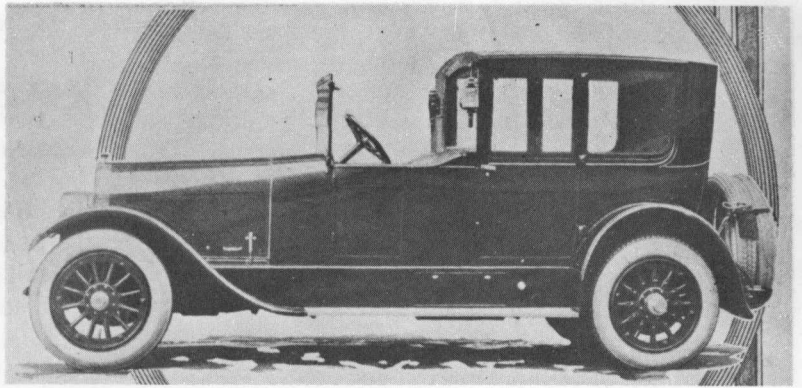


Illustration 7

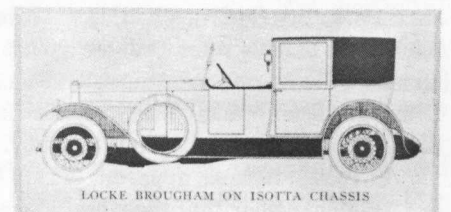
"cane," or "sham cane" application until toward the end of the '20s there was said to be only one firm in England which continued to use true woven cane, at great expense to those who desired color on the body following a pattern already "line-out" in chalk. Normally the color of the paint used was cane, but one might have an desired color so as to blend in or contrast with the body color. Heavy special paint was used which cured in a raised state, thus simulating true cane. Pictures of the tools used in applying the paint can be seen at the National Automobile History Collection of the Detroit Public Library. The tools permitted application of the paint so as to produce either a flat or a curved surface, the latter being more like true cane. This was the treatment used widely on Packards and Chrysler Imperials as well as on the 1926 Louis XIV Lincoln town car, described and pictured in detail in the sections of this article dealing with those marques.

Consistently until its demise in 1932, Locke & Company exhibited at the auto salons, auto body builders' association shows, importers' shows and special single-make exhibits, and its client companies exhibited its creations at the annual auto shows in New York, Chicago and on the West coast. In the pre-Classic car period, *Illustration 7* is a photo from the 1921 New York Auto Salon of a Locke-bodied Stevens-Duryea, included here as an example of Locke's primary specialty until the early '20s—town cars and limousines of magnificent quality and quiet good taste.

From *Autobody* for January, 1923, comes the sketch, *Illustration 8*, with the accompanying text: "In a brougham on Isotta—Fraschini chassis Locke showed an exquisite interior done in a delicate tan broadcloth trimmed with round cloth mouldings in rectangular design enclosing on the side panels and doors several bands in light-colored narrow laces. These decorations were handled with restraint and were exceedingly effective both in preserving the formality of the Town Car and in obtaining a dainty simplicity for the interior."

From the 1924 New York Auto Salon catalogue comes *Illustration 9*, reproduced in the *Autobody* magazine article, with description in the captions.

Illustration 8



LOCKE BROUGHAM ON ISOTTA CHASSIS

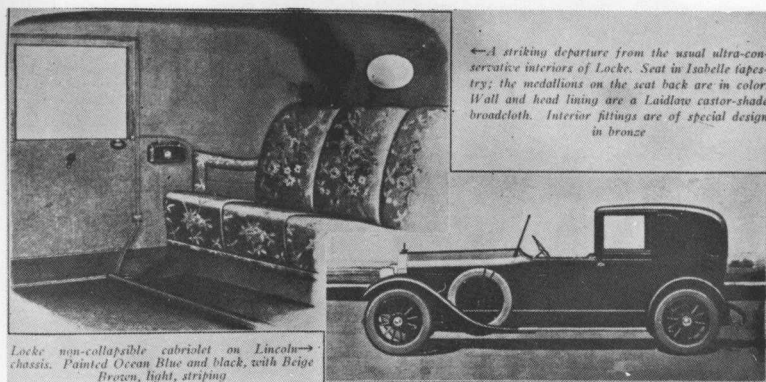


Illustration 9

In the late teens Locke discerned a small but growing demand for a "convertible" type of body in a lower, fleetier, sportier style for quality, high-priced open cars. Accordingly, as Hugh Pfau pointed out in his article in *Cars & Parts*, September, 1972, "they had developed what they called a 'convertible touring' body which was the forerunner of later convertible sedans. Folding tops with closed rear quarters as on such sedans, covered in Burbank, could be opened in good weather. The art of fitting lowering windows into the doors of such bodies had not yet been developed. Locke got around this by building a stationary windshield behind the front seat—most expensive cars were chauffeur driven regardless of their body style—and hinging two panels to this to act as windows for the rear doors which could be swung out of the way on a nice day. Removable glass panels took care of the front of the car, one over each door and another between that and the rear windshield."

This trend toward the open, or semi-open, style as developed by Locke's expertise and engineering, established a new hallmark for the company between 1925 and 1932, as will be seen in the later sections of this article. However, Locke's "magic" with the formal car continued unabated until perhaps its zenith in the 1929 Model J Duesenberg Town Car described in the section on that marque.

During this period, 1925—1932, Locke's staff of Tasman, Creteur, Koplitz, Roland Stickney, Wellington Everett Miller, John Tjaarda, Kenneth E. Coppock, John W.J. Ackermans, and others, created some of the most beautiful and durable examples of custom body design and engineering ever seen. They also were selected to engineer and fabricate exotic and advanced designs by Paul Ostruk, deCausse and LeBaron due to Locke's superior know-how in fabrication methods.

However, lest the reader succumb to the idea that all was peaches and cream between the many custom body firms, a story told to me by Rudy Creteur should be re-told here. Actually, competition was fierce and each firm jealously guarded its ideas. Mr. Creteur left Locke in 1927 to join Rollston. He had become quite friendly with George Tasman whom he had succeeded as chief design engineer in Locke's New York City facility when Tasman took over at Locke in Rochester. Shortly after Creteur moved to Rollston he found himself in Rochester on business and decided to call on his old friend at Locke. When Tasman found out who was calling he refused to let Creteur beyond the lobby.

In 1931 it became apparent to both Charles Fleischmann and William Miller that their era was ending. Many custom

body shops were going out of business or were being merged into the automobile companies. The great depression was tightening its grip on the economy. Tastes of the driving public were changing, mainly away from open, personalized cars toward more standard forms of the coupe, sedan and convertible versions. Relatively limited as they always were, the ranks of those willing and able to afford custom products were being decimated by financial troubles. The Locke facility in New York city had already taken steps to diversify, as noted in *Autobody* magazine for October, 1930:

"Locke & Company, custom body builders of Rochester and New York, have filled in the slack season by building a line of special deluxe baby carriages utilizing a standard composite automobile body as a model, a convertible coupe, with disappearing windshield and quarter windows all of Triplex glass, shock absorbers, brakes, and upholstery of the authentic automobile type."

While it is not known how successful this venture proved, heads up, Neiman-Marcus!

In 1932 Locke & Company ceased doing business—in retrospect a regrettable and irreplaceable loss to the heritage of the quality motor vehicle. First to close was the Rochester plant, followed shortly by the New York City shop.

According to Rudy Creteur, Locke & Company was offered a then fabulous sum for its New York City property on East 56th Street by a syndicate desiring to build a large apartment complex. With the proceeds from the sale, Fleischmann and several Locke craftsmen moved into quarters across the street where, under the name of Locke & Company Selling Branch, the business of servicing and rejuvenating quality motor cars continued for a few more years.

Records of the New York Department of State show that on December 15, 1937, Locke & Company was dissolved "by proclamation."

In this section, and here and there in the following sections on specific marques, I have included some pre-Classic era cars mainly to trace briefly Locke's development and accomplishments which led to its successes in the "golden era," 1925 to 1932.

This article cannot be said to be the last and final word on Locke & Company and its creations. Nor have I attempted to include every marque and model on which Locke mounted its bodies. There are many existing examples of Locke-bodied Classics: I have included only representative ones. Further, many "one-off" bodies for marques other than those included were undoubtedly designed and fabricated for individual clients. I would be delighted to hear from readers who know of any such, particularly if they still exist.

To Be Continued

Harold H. Emmons, Jr. researched Locke and Company to fill in the background of his own Lincoln touring. A long time member of the Classic Car Club of America and the Veteran Motor Car Club of America, Mr. Emmons is now an SAH member as well. He lives in Grosse Pointe, Michigan and is a retired attorney.

America's Greatest Automotive Figures

By David L. Lewis

America's greatest automotive figures? In the minds of Society of Automotive Historians members they are the founders of the Big Three—Henry Ford, William C. Durant, and Walter P. Chrysler. Others named among the nation's top auto men are Henry M. Leland, Ransom E. Olds, Alfred P. Sloan, Jr., Charles F. Kettering, Charles E. and J. Frank Duryea, John and Horace Dodge, and Charles W. Nash. No great surprises here.

The Society's members were surveyed in 1978. Of the 309 persons asked to name the 10 greatest auto figures, and state reasons why, 82 replied. The rate of return, 26.8 percent, isn't bad for a survey that asks people to think.

Respondents were told to define "greatest" in any way they wished. They were expected to vote only for Americans. Most did, but enough ballots were cast for Englishman F. Henry Royce, Germans Carl Benz and Ferdinand Porsche and Italian Ettore Bugatti to place them among the top 27 vote-getters.

In the balloting, Ford ran away from the field, while Durant and Chrysler closely contested second place. The top eight finishers were far ahead of the 152 others who received votes, and there was a relatively small gap between the Dodges and Nash and the remainder of the pack.

Among the second tier of leading vote-getters, the inclusion of William F. Harrah, George Selden, George Romney, and Edsel Ford could be considered the most surprising. Harrah died shortly before the poll, and the attendant publicity may have increased his support. Selden heretofore has been cast in a villainous role. Romney's revitalization of American Motors weighed heavily in his favor. Edsel Ford's stature obviously has grown since his death.

Among the 30 greatest auto figures (including the Duryeas, Dodge, and Duesenberg brothers, and five men tied for 23rd place), only Harrah, Romney and Henry Ford II were active in the 1960s and 1970s, and only Romney and HFII survive. In fact, except for these three men, all of those in the top group spent all or the most productive parts of their careers before 1940. Most of those named were manufacturers, although several were chiefly designers, inventors, executives, or had strong ties with racing. Seven of the top personalities were associated with Ford Motor Company—Henry and Edsel Ford, John and Horace Dodge, Barney Oldfield, Henry M. Leland, and HFII. General Motors-related figures include Durant, Leland, Sloan, Kettering, Nash, and Harley Earl. Chrysler is the sole representative of his company, Romney of AMC.

Some of those who named Henry Ford as the greatest automotive figure thought it superfluous to explain why. "Who else?," remarked Lawrence A. Brough, while I. Fitrell simply said, "It's obvious;" James K. Wagner replied, "Henry Ford, of course," Walter E. Gosden stated, "Everyone knows why;" and John Conde summed up, "There's no real need to define his contribution."

But many respondents cited Ford's battle against the Selden patent interests, production of the Model T, development of mass production, and putting into effect high wages and low prices, and others noted his part in building the Fordson, the Model A, the V-8, the River Rouge plant, and Greenfield Village and the Henry Ford Museum.

"There can simply be no question but that Henry Ford must be listed as the man who did most to create the age of the motor car," said Menno Duerksen in a statement typical of many. "First he was a pioneer in the development of the motor car itself. Then, his single-minded devotion to the principle of making a mass produced, low priced car of comparatively high quality did the most to put America on wheels. Beyond this, through his wage policies, he had a tremendous impact on the sociological evolution of America." "He was," added Walter F. (Frank) Robinson, Jr., "the first to have the vision of the auto as a universal machine and to realize that low cost production with high wages are the cornerstones of modern industrialism. [He also was] the creator of the moving assembly line."

Durant was recognized for having founded GM, his visionary concept of the auto industry, his promotional talents, and building up Chevrolet. "He had the vision to see the kind of company that was best suited to the automotive industry," observed John B. Rae. "He lacked what was needed to implement his dream, but he created General Motors to work with." "His optimism for the future of the automobile industry," added Ronald John Putz, "sparked great accomplishments in other auto pioneers." To Wagner, Durant was the "ultimate entrepreneur;" to Robert F. Gibson "a corporate genius gone mad;" to James M. Laux, the man who "helped make Michigan a center of the auto industry."

Chrysler was lauded for his contributions to Buick, Willys-Overland, and Maxwell-Chalmers, as well as for having founded Chrysler. His greatest achievement, in the view of most respondents, lay in creating the third of the "Big Three" by rehabilitating Maxwell, introducing Chrysler, buying Dodge, and launching Plymouth. "He had a genius for rescuing sick companies," noted Albert R. Bochroch, "and his early Chryslers were far ahead of their time." "He was," added Robinson, "the only leader to come into the industry long after its early days and make a line of mechanically progressive cars and a success of the business." "Walter," implores Gibson, "wherever in heaven you are," come back—the corporation needs you!"

Henry M. Leland got high marks for his pioneering roles with Cadillac and Lincoln and for his precision engineering and quality controls. "He was a man who transferred his personal integrity to his products," said Robinson, speaking for many, "and was the first to fully appreciate the role of precision and machinery." "He consistently rejected the 'second best,'" echoed Michael Sedgwick. "His efforts toward precision and perfection caused many to believe that the automobile was a reliable source of transportation," added Putz. "He was the master of quality control," concluded Frederick Z. Tycher.

Ransom E. Olds was credited with having produced, in the words of Richard Scharchburg, "America's first low-price, high-volume car." "He provided volume production even before Ford," observed O.D. Chiles. . . [His company] served as the first training ground for many of the future 'names' in the auto history. His early runabouts got the industry off to a good start because of their reliability." "He led the way," observed Duerksen, "in the design and mass pro-

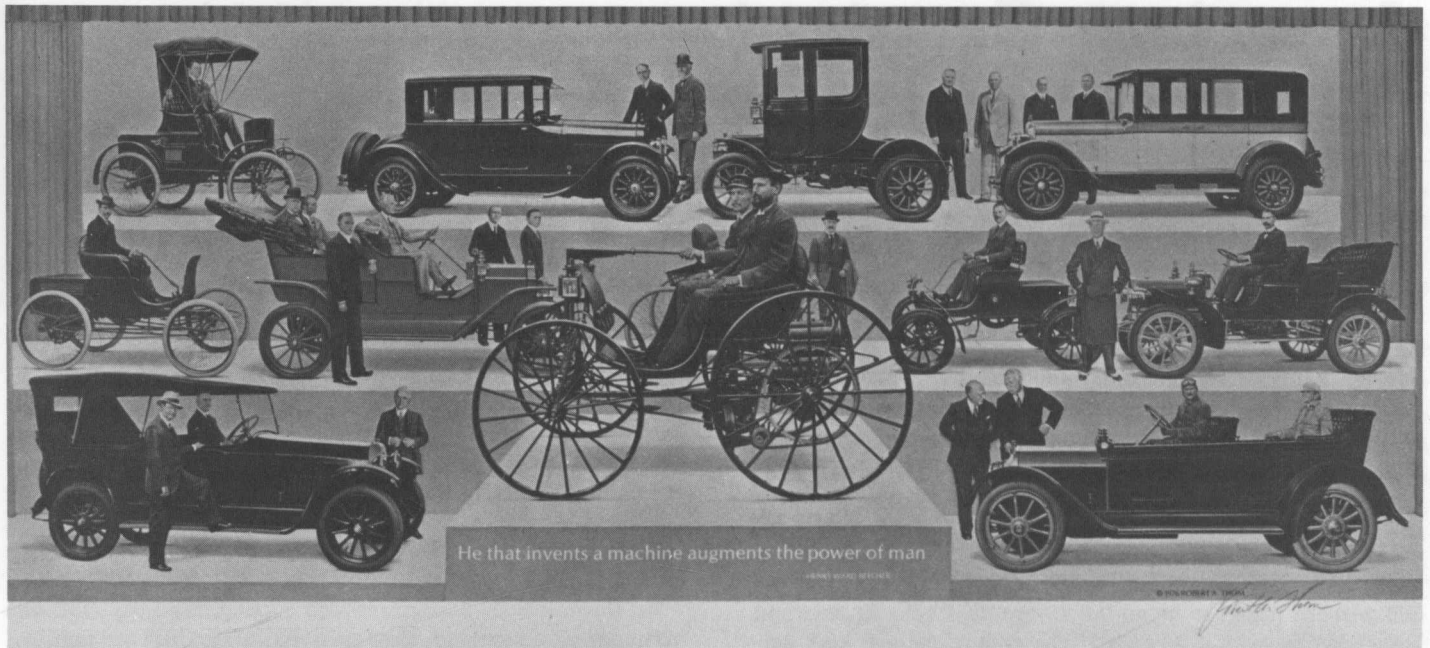


Photo: National Automotive History Collection, Detroit Public Library

Most of the auto pioneers and greats cited in the survey of SAH members are shown in this photograph of a mural hung in the Detroit Public Library, home of the National Automotive History Collection. The montage was executed by Robert A. Thom, who previously had pictorially depicted the histories of pharmacy, medicine, the telephone, and graphics communications.

J. Frank (1869—1967) and Charles E. (1861—1938) Duryea are shown in their 1893 car in the center of the mural. Top row, left to right, are James W. Packard (1863—1928), Wilfred C. (1869—1958) and Henry M. (1843-1932) Leland, Fred Zeder (1895—1950), Walter Chrysler (1875—1940), John (1864—1920) and Horace (1868—1920) Dodge.

Middle row, left to right, are Alexander Winton (1860—1932), James Couzens, (1872—1936), Edsel Ford (1893—1943), Charles E.

Sorensen (1881—1968), Henry Ford (1863—1947), C. Harold Wills (1878—1940), Norval A. Hawkins (1876—1947), Elwood G. Haynes (1857—1925), Ransom E. Olds (1864—1950), Alfred P. Sloan, Jr. (1875—1966), David Buick (1855—1929).

Third row, left to right, are Roy D. Chapin (1880—1936), Charles W. Nash (1864—1948), John N. Willys (1873—1933), Charles F. Kettering (1876—1958), William S. Knudsen (1879—1948), Louis Chevrolet (1878—1941), and William C. Durant (1861—1947).

The cars shown are, top row, left to right, 1899 Packard Model A; 1920 Lincoln 4-passenger Coupe Model 104, 1905 Cadillac "Osceola," 1924 Chrysler 5-passenger 4-door sedan; middle row, left to right, 1898 Winton, 1908 Ford Model T; 1894 Haynes (barely visible behind the centered 1893 Duryea); 1903 Oldsmobile; 1905 Buick Model C; bottom row, left to right, 1918 Nash Model 681, 1911 Chevrolet (prototype).

America's Greatest Automotive Figures

1. Henry Ford	667	20. Barney Oldfield	28	41. Robert S. McLaughlin	16
2. William C. Durant	367	22. Henry Ford II	27	41. William S. Knudsen	16
3. Walter P. Chrysler	344	23. Edsel Ford	26	41. Ralph Nader	16
4. Henry M. Leland	305	23. George B. Selden	26	44. Edward Cole	15
5. Ransom E. Olds	253	23. Alexander Winton	26	45. William K. Vanderbilt, Jr.	14
6. Alfred P. Sloan, Jr.	222	23. Ettore Bugatti	26	45. Henry B. Joy	14
7. Charles F. Kettering	216	23. George Romney	26	45. Harry C. Stutz	14
6. Charles E. & J. Frank Duryea	129	28. Harvey Firestone	25	45. Charles E. Sorensen	14
9. John & Horace Dodge	56	29. Jesse Vincent	23	45. Raymond Loewy	14
10. Charles W. Nash	54	29. Gordon M. Buehrig	23	50. Edgar & Elmer Apperson	13
11. Fred & August Duesenberg	49	31. Howard C. Marmon	22	50. David Dunbar Buick	13
12. Harry Miller	47	31. Francis E. & Freelan O. Stanley	22	50. Alvan MaCauley	13
13. Harley Earl	42	33. Jonathan Maxwell	21	50. C.L. Cummins	13
14. E.L. Cord	36	33. Edward (Ned) Jordan	21	50. Tom McCahill	13
15. William F. Harrah	35	35. Roy D. Chapin	20	50. Richard Teague	13
16. F. Henry Royce	34	35. Carl Fisher	20		
17. Elwood G. Haynes	32	35. Sergio Pinin Farina	20		
17. John North Willys	32	38. James Couzens	19		
19. Carl Benz	29	38. Gottlieb Daimler	19		
20. Ferdinand Porsche	28	40. James Ward Packard	17		

The number of votes is based on 10 for first place, nine for second place, eight for third place, etc.

duction of a small, high quality passenger car. . . His creation of the REO must also stand as a major accomplishment." Added L.C. Gudenschwager: "He was the pioneer of mass production, father of the Oldsmobile and REO, and a pioneer in national advertising, nationwide and foreign distribution, and customer service standards."

Alfred P. Sloan, Jr. was rated the sixth greatest auto figure on the basis of having been a superb administrator, or, as John Conde put it, "the master auto executive. . . the father of modern automotive management." "He put GM on its feet and built it into the world's biggest privately-owned manufacturing enterprise," as Rae said. "His organization of GM provided the model for most large industrial organizations, especially automotive. It has been adopted worldwide." "Mr. Modern Organization," said Wagner, "laid the organizational foundation and built the superstructure of one of the best-run organizations of all time. He made an efficiently-running machine out of Durant's motley collection of enterprises."

Charles F. Kettering was cited for having been, in the words of Robinson, "the most significant single inventor connected with automotive development." Boss Kett's work with the electric self-starter, ethyl gasoline, paints, high compression engines, and the diesel were repeatedly noted. "The self-starter alone," said Jorge A. Barranco, "made the automobile a practical means of conveyance and allowed women to drive them." "If there ever was a genius in the automobile business," averred Nelson Bolan, "it was this man. . . His inventive genius in all phases of the automobile compares to Thomas A. Edison's genius in the field of electricity." "His research," reiterated Col. Earl W. Haefner, "was unsurpassed."

J. Frank and Charles E. Duryea received votes from I. Irving Silverman and Jeff Gillis for having "built the first practical auto in the U.S." and by E.L. Balderson for being "the first to develop, prove, build, and market a successful road-propelled machine" [in America]. Although most respondents who voted for the Duryeas commented on both of the brothers, some singled out one or the other. Sedgwick placed Frank atop his list "for getting an automobile on the road when others were merely talking about it," and Bochroch lauded Frank for having beaten the Benz in America's first auto race. Charles E. was cited by Louis G. Helverson for being "an educator. . . on the subject," by Fitrell for "having popularized the concept of self-propelled vehicles," and by Dr. Charles W. Bishop for his "long editorial career in which he guided many of the early experimenters."

The Dodge brothers were recognized for having provided quality parts for early Ford cars, then bringing out their own dependable machine. "They were smart operators of the old school" ran Arthur Lee Homan's evaluation. "Their car was probably the toughest and simplest of its time." Added Jeffrey L. Caplan, "They built a tough car for a nation that had only Model T Fords and needed something better." "They had grit," said Tycher, "and were an American success story." [And] "their car survives today," remarked R.A. Wawrzyniak, "nearly 60 years after they have passed away."

Charles W. Nash was credited with having brought Walter P. Chrysler to GM, then with having organized Nash Motors and keeping it afloat after many other independent firms had gone under. "He had a significant pre-Nash career," noted George P. Hanley, "then produced technically unique cars under the Nash marque." "He was the supreme

'manager' of automotive manufacture," added Sedgwick, "who by cunningly husbanding his resources kept a company together during the Depression years." He was the most durable of the great figures in motor car history," stated Duerksen. "Starting as an executive for the Durant-Dort Carriage Co., he went on to become president of the Buick Division and later, General Motors. He then founded a motor manufacturing company of his own. . . which has survived as American Motors." "He was the outstanding example of a man who rose by ability from very humble origins and deprivation to leadership," concluded Robinson.

Fred and August Duesenberg were ranked 11th because of "their work in creating one of the finest autos ever built," as Gosden put it. "They had talent, worked hard, and built a monument to the ultimate in automotive workmanship," observed David W. Glass. "Their cars," added Tycher, "had speed, style, strength, and were over designed and overpriced, but were big and beautiful like America itself." The Duesenbergs' pioneering effort with racing engines was cited by William J. Lewis.

Harry Miller received votes for, as Sedgwick states, his "major contributions (indirectly) to international racing, especially in respect of upstairs camshaft motors, supercharging, and front wheel drive." Added Michael Frostick, "He and Bugatti had intense creativity, and made a contribution to the fusion of art and design."

Harley Earl picked up points for, as Mike Davis put it, "creating the concept of automotive styling." "He was the founder of the styling school," commented Roger Madison, "whereby the volume production car ceased to be a mechanical chassis with a 'weather box' on top. Mass production autos thereby became something functional and elegant." "He established 'styling' as an integral part of automobile design," concurred Sedgwick. "His part in the integration of the automobile should not be ignored even if some of the results were disastrous." Added Robinson: "He was the first to give styling a significant role in consumer choice and to give a unifying identity to a series of cars of widely different purse and price."

E.L. Cord was described as the "father of the flashy auto" by Henry Blommel, "of the world's sharpest cars" by Harlan E. Applequist, as the "most flamboyant auto figure" by Jeffrey I. Godshall, and as a "fantastic salesman" by Harry Pulfer. All of those who voted for him cited his work on the Cord, Auburn, and Duesenberg cars. "I know he didn't design anything," said Sedgwick, "but he masterminded and financed two outstanding and individualistic U.S. automobiles in an era of the stereotype. Where would Duesenberg, etc. be without him?"

Harrah garnered votes for being, in the words of Tycher, "the ultimate collector." "His museum is a national treasure," said James E. Harrigan. Added Ira H. Goldman: "He had the foresight to collect for public view the finest selection of autos in America." Niels-Erik Pederson, a Dane, goes further, describing the collection as "the best auto museum in the world." "Without a doubt," said Brad Hindall, "he was the leading patron of the automotive arts."

F. Henry Royce was rated 16th for having, as Walter O. MacIlvain said, "established standards of excellence in car manufacture that endure." John F. Dugdale agreed: "Since 1903 Rolls-Royce cars have stood for the highest standards of technical excellence, performance, quiet, and quality." Added Edward D. Vosburgh, "his standards of excellence in design, construction, and materials selection made his cars

outstanding in their day, and these standards remain undisputed even in the light of modern technology."

Elwood Haynes was described by Wallace S. Huffman as a "scientist, engineer, educator, and inventor of stellite and stainless steel [and of] one of America's early automobiles. . . [also] one of the first automobile companies." "Only a few months after the Duryeas," as Willard J. Prentice said, "he designed a car which was equally successful." Added Putz: "His extremely early work played a great role in establishing the infant auto industry."

John North Willys, as Col. Haefner noted, "saved the Company from extinction in 1907, and managed it successfully for more than 20 years. From 1916 to 1921, Willys-Overland sold more cars in competition with Model T Fords than any other company." Added Duerksen, "Willys also played a leading part in the development and production of the sleeve valve engines [which] for many years made a unique contribution to motor car history." Willys' ability to "come back" was cited by Harold W. Wiseman.

Pioneer Benz, along with Gottlieb Daimler, was top rated by Dutchman J.F. Kuipers for having "invented the first self-propelled vehicles with combustion engine and creating a company which belongs to the finest among the many automobile manufacturers today."

Porsche was highly regarded by Walter O. MacIvain, Eddie L. Ford, and Richard E. Larowe for developing the Volkswagen. "He was broad-minded enough to build not only the Volkswagen," said Kuipers, "but also one of the most beautiful sports cars of the world." Dugdale further observed that Porsche demonstrated the benefits of rear-engine cars.

Oldfield was cited by Brough and Larowe for the publicity that his racing exploits gave the automobile and by Charles Betts for his showmanship in behalf of racing and cars.

Henry Ford II received support because, said Davis, "he was headed an auto company (33 years) longer than anyone except his grandfather, rebuilt it with [Ernest R.] Breech's help, and took business beyond the balance sheet with his social concerns." "His impact on the company and country," added Duerksen, "have been great." "He," said Wagner, "is the living symbol of today's socially enlightened business entrepreneur."

George B. Selden, tied with Alexander Winton, Edsel Ford, Ettore Bugatti, and George Romney for 23rd place, was ranked No. 2 by Silverman for being the "inventor of the first gasoline car, although he did not produce it. [He] conceived and patented many features that became commonplace [and was] really a pioneer who was ground into nothing by his own arrogance and Henry Ford's invective. Years ahead of the pack."

Winton, a pioneer manufacturer and racing champion, was rated No. 1 by Maurice Harrison for "building his first car in 1898, having a vehicle with 8 cylinders by 1905, and also developing a practical storage battery." "In addition to his engineering skill," added Silverman, "he carried the name of a U.S. car to Europe."

Ford won praise for his part in Lincoln, Model A, Lincoln Zephyr, and Lincoln Continental design, plus, as Brough put it, "for enduring his father." "He was a major factor in automobile modernization," added Robert Taylor III.

Bugatti was highly rated by Dugdale as "an engineer of genius who brought artistry to auto design" and by Ford "for the excellence of his racing cars."

Romney was rated more highly for "foresight" than

anybody else in industry history by R. Perry Zavitz, who observed that the AMC executive "promoted and popularized the compact car concept till the public realized it made sense."

Among others cited in the survey, several are especially surprising choices: Ralph Nader, Preston Tucker, and Joseph Frazer. Nader received enough votes to rank him among the 50 greatest auto figures. "He has done more than any other man living to revolutionize the role of the automobile in today's society," averred Conde, "whether one agrees with his methods, or even his motives." "He is the most important automotive man in our time," said Wagner. "Without him, there would be no federal regulation." Echoed Harrigan: "He has caused more changes in the industry than any other person." "Cars A.N. (After Nader)," added Wick Humble, "aren't so pretty, fun, or lovable, but are more in keeping with our changing age." "Automobiles," [because of Nader] concurred G.M. Kaminsky, "are a lot safer now than they were 12-15 years ago."

Tucker, said Mike Porter, made a "sincere effort to build a quality car using new ideas in safety and performance." W. David Shew conceded that Frazer was "perhaps not great in the usual sense, but great because he dared to tackle the big boys."

Lee A. Iacocca and John Z. DeLorean also made the list, Iacocca being named on two ballots, DeLorean getting a half-vote. Iacocca was named the industry's leading marketing man by Zavitz for having introduced the Mustang, "a compact, but with a good measure of luxury and sportiness which could be fitted with virtually any Ford-build engine. It had no direct competition until about a million were sold three years later."

This survey is the first of its kind to be conducted among SAH members, or any knowledgeable body of automotive historians. It likely should be repeated every decade or so, and next time around include worldwide, rather than only American, auto figures.

Although we did not plan it that way, three of our contributors to this issue are from Michigan. But while *Prof. DAVID L. LEWIS* lives in Ann Arbor and teaches in the Graduate School of Business Administration at the University of Michigan, he is known world wide for his monumental book, *The Public Image of Henry Ford* and for his innumerable articles generously and impartially supplied to commercial, club and professional publications on Ford and other subjects.

A Singular Car ~ The Carroll

By Donald J. Summar

In December 1910 D.M. Aument, a tobacco dealer in Strasburg, Pennsylvania, purchased a two-story frame building at the corner of West Main and Fulton Streets and announced that the building, which had formerly been occupied by Sharpe's bologna factory, was to be "transformed into a complete motor car works and garage." Aument's sons, Carroll and Chester, formed a partnership as the Carroll Motor Car Company to manufacture automobiles in the Sharpe building. Carroll M. Aument, who was a graduate of Drexel Institute in Philadelphia, was an experienced machinist and enthusiastic automobilist. He was company engineer and mechanic, while Chester was the manager and salesman. They were also the firm's only employees.

The Carroll company's first advertisement, which appeared in the *Strasburg News* on January 14, 1911, listed the selling of tires and supplied and the repairing of automobiles, and concluded with: "Carroll Motor Car Company, manufacturers of CARROLL CARS." To provide income while a prototype Carroll Car was being built, the brothers secured the Lancaster County agencies for the Marion, Cutting, and Jackson automobiles in early 1911.

Work on the chassis of the first Carroll Car was underway by May 1911. During the summer, Aument purchased a

4-cylinder Continental engine for the car and secured other parts at auto shops in the Philadelphia area. The chassis of the Carroll Car was finished in time to be displayed at the Lancaster Fair, held the last week of September. The *Strasburg News*, in an article titled "CARROLL CAR AT THE FAIR," stated:

The chassis, or running gears and machinery of one of the new high-grade 40 horsepower Carroll automobiles, built by the Carroll Motor Car Company, Strasburg, was exhibited at the Lancaster Fair this week . . . Being only the bare metal work, motor, and tires, it showed the real business parts of an automobile in a way that cannot be in any other manner so well observed. This is one of the high grade cars equal in speed and equipment to the best made anywhere.

This reference to "one of the new . . . Carroll automobiles" is the only mention of company activities which might be interpreted to mean that more than one Carroll Car was under construction. However, the fact that the Aument brothers were the only employees of the Carroll company would seem to preclude the construction of more than one chassis at a time.

During the winter the chassis was painted, a touring body made in Lancaster, Pennsylvania, was fitted, and the car, now called the "Carroll-40," was given a test run on February 23, 1912. The car was definitely identified as the one shown at the Lancaster Fair in chassis form. An article in the *Strasburg News* of March 2, 1912, stated, in part:

Those of us in Strasburg who have seen it in course of construction need not be told of the quality and high grade of the material and workmanship that lies under the polished brass, glistening paint, and luxurious upholstery. Strasburg feels that it is a credit to have it

The Carroll chassis parked in front of the "factory," probably in September 1911, when the chassis was shown at the Lancaster Fair. The two cars barely visible in the shed appear to be Marions.

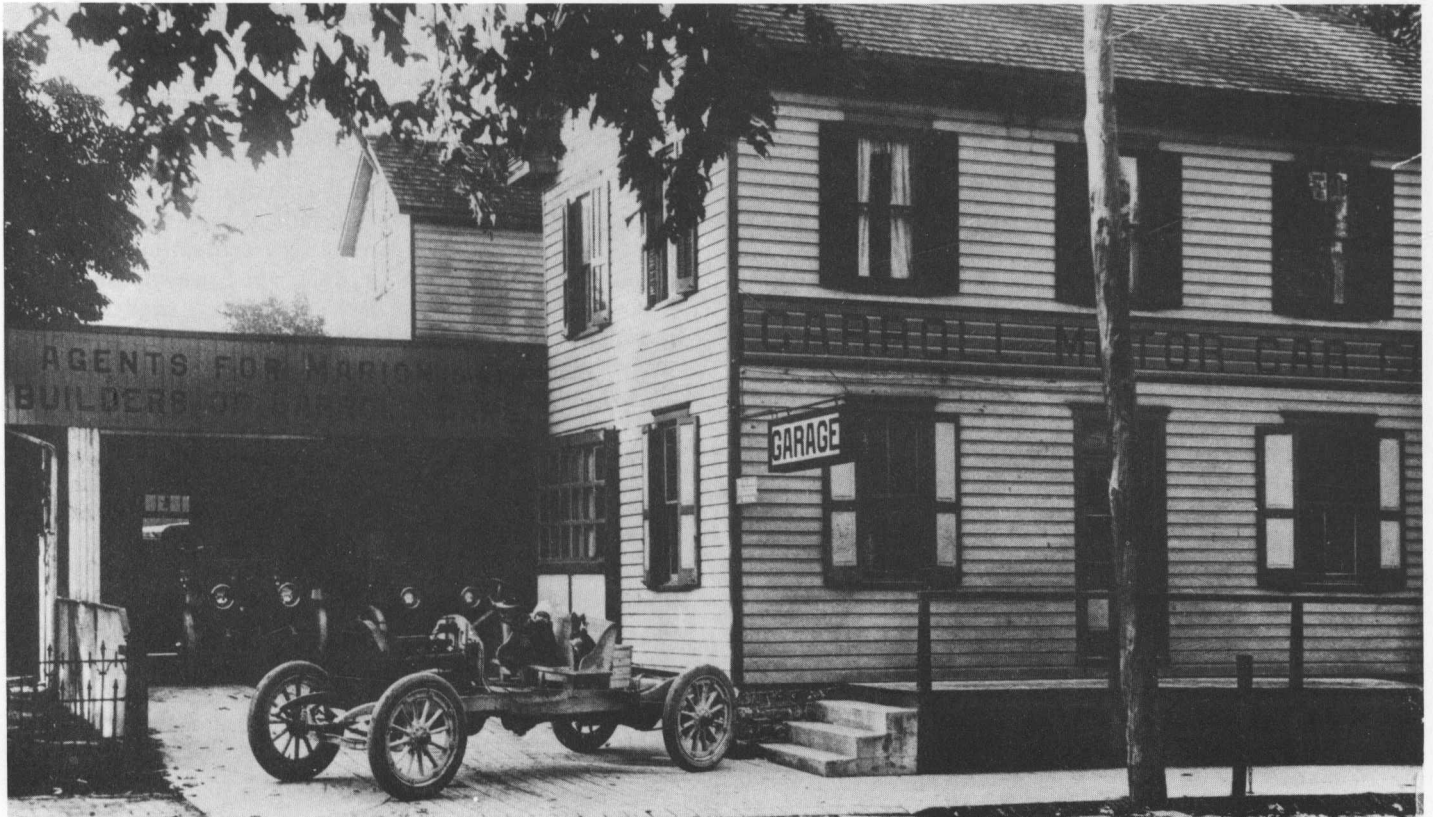


Photo: Mrs. Frank W. Herr

made here, and confidently expects, that when the people have seen it, that many orders will come to its makers for cars of the same pattern.

The most interesting aspect of this article is that it is the last mention of the automobile or the company's plans to manufacture automobiles to appear in the *Strasburg News*. The last company advertisement to carry the slogan "Builders of Carroll Cars" had appeared in May 1911.

Despite a lack of further publicity, it appears that the Aument brothers had not given up. In January 1913 brief specifications for the Carroll Car appeared in *Motor Age*, followed by more complete specifications in *Automobile Trade Journal* in March. The car described in detail was the Model 4-D-40 5-passenger touring car, priced at \$3,250. Also mentioned were the 6-C-40, a 6-cylinder touring car priced at \$3,500, and the 4-E-32, a smaller 4-cylinder roadster priced at \$2,400. Given such high list prices it is doubtful that the Auments could have found buyers for their cars if they had built any in 1913.

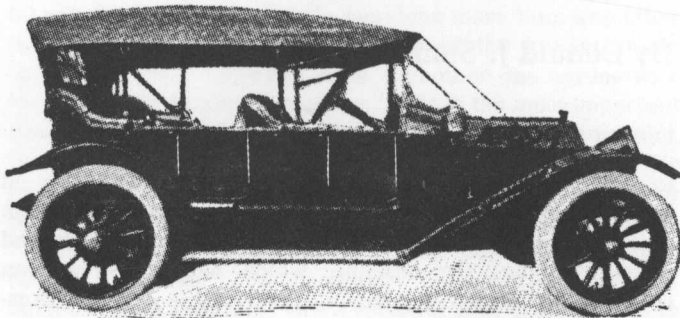
With the appearance of the trade journal items in early 1913, the Carroll Car faded away. The car built in 1911—1912 was the first and last Carroll Car. The Carroll Motor Car Company continued in business until November 1917 as an automobile sales agency, handling the Marion (and later the Marion-Handley) and Saxon automobiles, and the Republic truck.

Carroll M. Aument left Strasburg in 1915 to take a position with the Simplex Automobile Company, New Brunswick, New Jersey. During World War One he worked as an engineer for the Wright-Martin Aircraft Company in the Simplex factory on the Hispano-Suiza aircraft engine project. He left Wright-Martin in 1919 to open a consulting firm, Aument & Gillespie, in New York City.

Chester Aument ran the Carroll company by himself from 1915 until selling the business in late 1917. The 1912 Carroll Car was kept at the garage and used as a tow car. It continued to be used as a tow car by subsequent owners of the business until retired to the back of the garage in the early 1930s. When the business changed hands in the late 1930s the Car-

roll Car was sold for scrap and broked up by a local junk dealer.

This article, in a different form which included a detailed history of the auto sales agency, was published in the *Journal of the Lancaster County Historical Society*, 77, no. 3 (Trinity 1973) as "The Carroll Motor Car Company of Strasburg."



The Carroll car as shown in the directory listing for the make in *Automobile Trade Journal*, March 1913. Apparently a retouched Marion illustration, it seems to be another in the series "If you don't have a photo, use one from someone else."

Editor's note: I have been unable to discover any illustration of a Marion with a dropped frame such as is shown in both the chassis and touring car photos of the Carroll and from this I suspect that the touring car is the actual bodied Carroll after all. My apologies to author Summar for questioning his caption but I think this prominent feature would have presented difficulties to the retoucher.

DONALD J. SUMMAR has specialised in researching the car and truck building activities which have taken place in Pennsylvania. He lives in Lancaster and is employed as a researcher and writer. Don has been a frequent contributor to *Automotive History Review*, the Newsletter, and other publications.

From the Readers continued from page 2

of a single word. And, for that matter, it is a word I would not be averse to adding since the statement as amended would be quite accurate: the truck which Locomobile added to its line in 1912 was a 5-toner - certainly a heavy truck by the standards of the day! Obviously then, I am not taking issue with Mr. Kahn on the grounds that his suggested change would throw my work into error.

What I do disagree with quite strongly - strongly enough, in fact, to believe that it merits a reply - is the basic argument Mr. Kahn presents in support of such a change.

I believe that this argument can be accurately characterized as follows: Before 1912, Locomobile had already produced several commercial vehicles including a fire engine, a paddy wagon, and a delivery van, all of which are pictured in the 1911 *Book of the Locomobile*. Since all such vehicles are trucks (at least according to Mr. Kahn's definition) then, ipso facto, Locomobile already had a truck in its line before 1912 and, therefore, could not have added a truck in that year. In fact, what it really added was just a heavy truck.

What is wrong with this argument? And where do I take issue with it?

Certainly not over the question which seems to be of greatest importance to Mr. Kahn; namely the question of what constitutes a truck! I will readily admit that I have not given the matter anything approaching adequate thought and consequently, I would be extraordinarily reluctant to enter into a debate with someone like Mr. Kahn who has obviously given it a considerable measure of his attention. I shall leave this question for others to thrash out. At least for the present, I am quite willing to concede Mr. Kahn's contention that the paddy wagon, fire engine, and delivery van he saw pictured in the 1911 book are indeed trucks.

What I do argue with is Mr. Kahn's basic conclusion; namely that the production before 1912 of such commercial vehicles - even granting that they are trucks - can be taken to mean that Locomobile already had a truck in its line! On the basis of fairly extensive research into the company's history, I would submit that such vehicles were almost certainly produced only in rare instances, on special order, and were probably more for publicity purposes than anything else. Is it really sound to argue that Locomobile had a truck in its line before 1912 on the basis of these exceptional, special order vehicles? Or might it perhaps be closer to the truth to say that "Locomobile added a truck to its line" at that point in

continued on page 21

Fuller of Kalamazoo

From Little Cars to Big Transmissions

By James C. Peterson

In the 1890s the firm of Fuller Brothers was a prominent company in the Kalamazoo area. The company had its beginnings in Minneapolis, Minnesota when in 1885 the Fuller family began the manufacture of washboards and woodenware. Impressed by the advantages found in Michigan, in 1888 the company moved to Kalamazoo. Here they erected a large new factory and for a number of years continued to engage in the production of wooden items including washboards. Charles D. and Frank D. Fuller were the proprietors and one of their early employees in Kalamazoo was Maurice E. Blood, who left in 1891 to form the Kalamazoo Cycle Co. with his brother Charles. Later in the nineties the Fullers became involved in other activities. Both were active in the book business for a while and Charles was associated with firms which manufactured machinery and boiler cleaning compounds.

On December 30, 1902, at the offices of the Kalamazoo Cycle Co. the Fullers and the Bloods joined forces again in organizing the Michigan Automobile Co., Ltd. to become the first motor car manufacturer in the area. While continuing his interests in several other businesses, Charles Fuller became chairman of the new company. Frank Fuller was secretary and general manager, Maurice Blood treasurer, and Charles Blood superintendent.

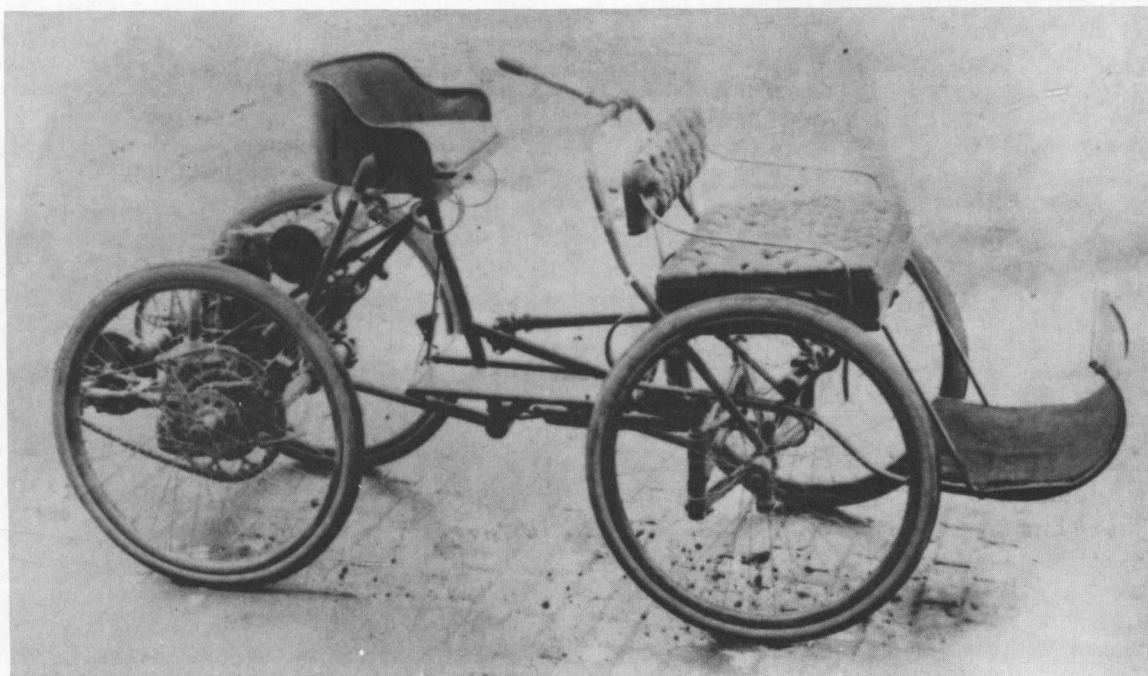
The first prototype, devised by the Blood brothers, was a light vehicle with wire wheels and a single cylinder air-cooled engine best described as a rather primitive quadricycle with

engine at the rear driving just one wheel. The driver's seat was centrally located above and just ahead of the engine. Steering was by tiller and there was no body, top, floorboards or fenders. Two passengers could be carried on a seat mounted over the front wheels. This vehicle reflected the prior experience of the Bloods in cycle manufacture and was in effect a motorised version of pedal-powered vehicles used at resorts such as Palm Beach. Perhaps the Kalamazoo Cycle Co. had built vehicles of this type. With a wheelbase of only 48" and a tread of 30", this 360 lb. car was hardly suitable for country roads, but within its limitations it was proved durable through extensive testing.

The new company moved into a four story brick building originally erected by the Cone Coupler Carriage Co. and work was begun on a car suitable for sale to the public. The new model was described in Cycle and automobile Trade Journal, July 1, 1903:

The Michigan Gasoline Car represents one of the most successful attempts yet made to place upon the market a reliable low-priced automobile and at \$450 it is the cheapest car on the market with the exception of the Orient Buckboard, which, of course, is of an entirely different style. The Michigan has a wheelbase only 54 by 36 inches, but as it has a low center of gravity it is perfectly safe from toppling over. The seat is full width and carries two comfortably. Its carrying capacity for tools and luggage is equal to that of the regular runabouts. Twenty-eight inch wire wheels are used, fitted with Dunlop tires, specially made for the manufacturers of the car. The engine is air cooled, gives 3-1/2 HP, and is ignited by a simple ignition mechanism. The car weighs only 400 pounds complete, and the 3-1/2 HP is found to be ample. The inlet valve is operated by the suction of the piston. The speed of the engine is from 250 to 2,000 RPM, and is controlled by twisting the grip of the upright lever at the seat. Pushing this lever forward throws in the low speed clutch, and pulling it backwards throws in the high speed clutch. The driving is through

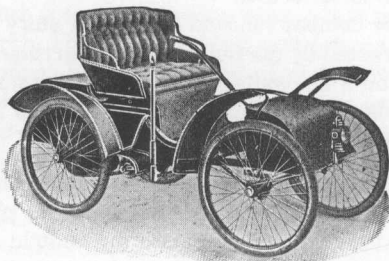
The prototype Blood runabout of 1902 which led to the formation of the Michigan Automobile Co., Ltd.



THE MICHIGAN

SOME POINTERS ABOUT THE Michigan Automobile.

A Finished Product.
A Strong Hill Climber.
Air cooled motor—nothing to freeze.
Easily Controlled.



New Tires very cheap compared to larger cars.
Carries two persons easily—plenty of room.

Easy to learn to handle.
Costs but little to run it.
Cheaper than horses.
Runs easily twice as fast.
Never gets tired.

Perfectly practical on ordinary roads.
Goes and comes back.
Frequently called "a beauty."
Made of the best materials.
Highest mechanical skill.

And the Price, only \$475

Manufactured by
Michigan Automobile Company, Ltd.
Kalamazoo, Mich., U. S. A.

individual clutches, a countershaft and roller chains. The countershaft runs on ball bearings, as does also the front wheels.

A Brown-Lipe spur equalizing gear is used on the rear axle, the latter running on Hyatt roller bearings. The transmission gives two forward speeds, but no reverse. However, the reverse is not found necessary, as the car is light enough to lift around in close quarters or be backed by hand power, but this is rarely necessary, as it will turn in a 20 foot circle. The highest speed is 20 miles per hour. Over 100 miles can be traveled on one filling of the gasoline tank.

A powerful foot brake is provided, which will stop the car in its own length. The body is elegantly finished in black and red. Two sets of batteries are furnished with each car, besides a foot pump and all necessary tools. The frame is of stiff Bessemer angle steel and the body is easily detached. All upholstery is in leather. The equipment includes mudguards and a brass oil lamp. Regardless of its low price this car will appeal to all on account of its simplicity, and it will no doubt be very popular with ladies.

About 100 of these cars were made and sold in 1903—04 and were the first to bear the name "Michigan." The prototype quadricycle probably was never named but has usually been termed a "Blood" in deference to its origin. It is interesting to note the reference to the Orient Buckboard in the preceding description of the Michigan. In 1904 the Orient was priced at \$425, was larger than the Michigan, having 80" wheelbase and 42" tread, but was largely made of wood. A number of these Michigan runabouts were sold in Massachusetts, home state of the Orient Buckboard.

The next Michigan model was on the road by June 1, 1904. I was a larger car with two cylinder opposed engine of 4-1/2" x 5" mounted under the seat and was priced at \$1,000. About thirty of these cars were produced and sold in 1904 and were reported to be well liked.

By November of 1904 the design of this car had been refined and this new version became the Michigan Model D. The wheelbase was 80 inches, tread 55 inches, wheels 30 x 3-1/2, opposed motor 4-5/8 x 5 inches, planetary gear, two forward speeds and reverse, rear entrance tonneau body to seat five passengers, weight about 1,675 pounds, price \$1,100 with lamps, horn and necessary tools.

A fourth model was completed soon after and catalogued as "The 1905 Model E," with a side-entrance built-in "King of the Belgians" tonneau, to seat five passengers, same motor and wheels as Model D, weight about 1,700 pounds, wheelbase 86 inches, price \$1,250. Models D and E constituted the entire factory output for 1905.

The company was described in 1905 as having a commodious and well-equipped four story brick factory in Kalamazoo; builds its entire cars, except some accessories, in its own factory, from original designs, and expects a product of about 250 cars, both models, in 1905. Designs of the two cars were worked out by Mr. William E. Russell, superintendent for the Michigan Company.

An interesting insight into how the Michigan engines were manufactured is seen in observations made by an early automotive reporter in 1905:

The pistons are ground truly cylindrical, .002 of an inch under cylinder diameter size; on the testing stand the pistons are first put at work by the motor driving itself, not being belt driven, as is usual. As soon as the pistons give evidence of distortion by the slowing up of the self driven motor, the motor is stopped, the pistons are taken out and the high spots are reduced by hand-filing, and the engines are again started and again fitted by hand filing, until extended runs show no binding; this treatment makes it certain that the pistons will never give any more trouble.

The Blood brothers left the company by 1905 to form their own automobile and machine company. Charles D. Fuller remained chairman and president while W.E. Upjohn took over as treasurer.

QUANTITY PRODUCTION
FROM DESIGNS OR SAMPLES

MOTORS { **2** - **CYLINDER**

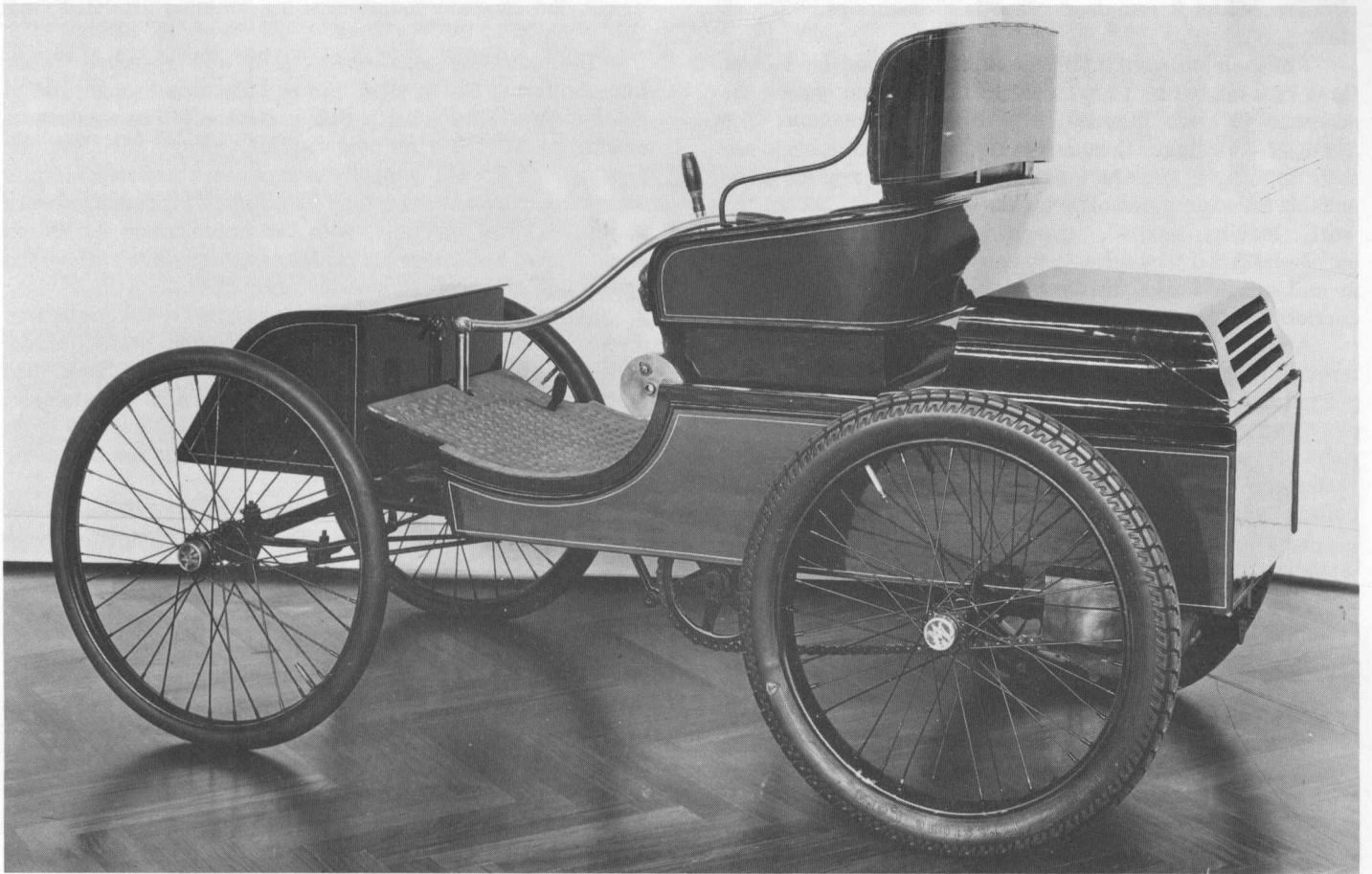
TRANSMISSIONS { **PLANETARY**
SLIDING GEAR
JACK SHAFTS
COMBINATION

STEERING GEARS

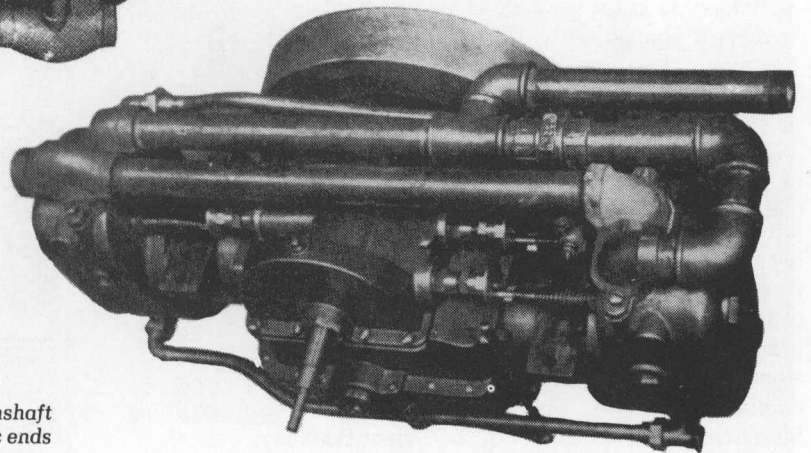
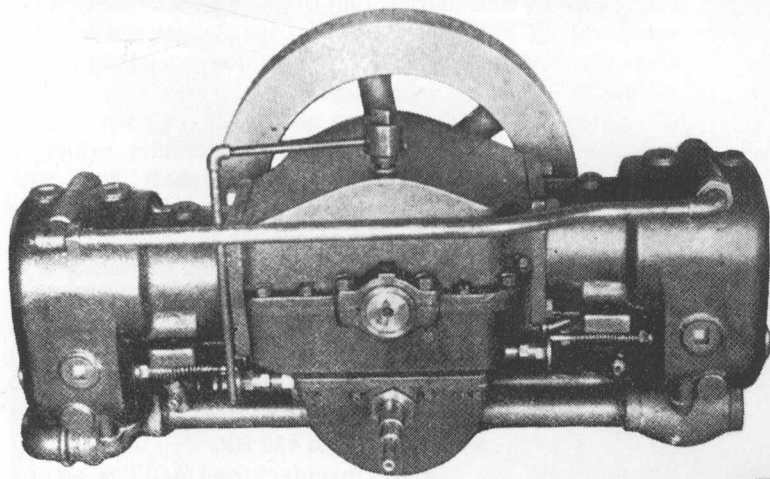
MACHINE WORK TO ORDER

QUALITY OF WORK GUARANTEED
WRITE FOR ESTIMATES OR SUGGESTIONS ON YOUR
DESIGNS. WE'LL HELP YOU ALL WE CAN

MICHIGAN AUTO. CO. LTD.
KALAMAZOO, MICH.



The Michigan runabout of 1903—04. A delicate appearing but durable little car. Two or three of these still exist out of the original production of one hundred or more.



The peculiar assembly of the 1905 Michigan engine with the camshaft housing forming the bottom layer of the sectional crankcase. Disc ends were required on the valve lifters to operate the offset valve stems.

The Model E remained essentially unchanged through 1907.

Automobile manufacturing continued strong for two or three seasons but by 1908 increased competition caused the company to drop automobile production altogether. The Michigan Automobile Company found it more profitable to use their extensive manufacturing facilities to produce components for other automobile builders. Besides doing contract work, making engines, transmissions, rear axles and jackshafts for automobiles, they carried on sideline activities in making dictionary holders, childrens seats, and parcel carriers for bicycles.

Around 1908 another firm in Kalamazoo became interested in building cars. This was the Michigan Buggy Company, totally separate from the Michigan Automobile Company and a large maker of horse-drawn vehicles in its own right. It was natural for them to consider the name "Michigan" for their new cars, and one report states that the Fullers "gave" the name to the Michigan Buggy Company. To keep the record straight, it is important to emphasize that while the Michigan Automobile Company ceased making cars by 1908, the Michigan Buggy Company soon after that time began to make cars and that although the products of both companies were named Michigan there was no other connection. The confusion over these company names was not resolved until 1913 when the Michigan Automobile Company was reorganized and renamed Fuller and Sons Manufacturing Company. The Michigan Buggy Company by then was calling their cars "Mighty Michigan" and was soon to expire amid spectacular financial-legal improprieties, but that is another story. The Fullers of Kalamazoo also had no connection with the Fuller Buggy Company of Jackson, fifty miles to the east which produced the Full car 1909—11 before renaming it the Jackson.

By 1913 the original company was reorganized and renamed the Fuller and Sons Manufacturing Company. Frank D. Fuller became president and manager, Lawrence C. Fuller, vice-president, Walter P. Fuller, secretary, and W.E. Upjohn, treasurer. The company continued to refine and develop passenger car transmissions (Models F and J) and clutches which proved to have a large demand by other automobile companies, especially Chalmers and Chandler. Heavier duty transmissions were also built for the Yellow Cab Co. and Checker Cab Co.

As the industry continued to develop and specialize, it became apparent that distinctive types of transmissions were needed to the truck industry. The Fullers expanded into this field as well as manufacturing automobile transmissions, clutches and controls. Production of passenger car units was gradually phased out by 1923. Fuller and Sons Manufacturing Company then specialized in producing heavy duty truck transmissions until 1928 when the company was succeeded by the Unit Corporation of America, thus ending a forty year relationship between an industrious family and the Kalamazoo area.

Like many other companies of the time, the Unit Corp. became bankrupt in 1932, during the great depression. J. Seton Gray, a consulting engineer from Wisconsin, was appointed receiver by a federal court in 1932. At this time, the company had cash assets of \$303.76 and employed 19 people. Under Gray's direction, the company remained in business. Steel and other materials were obtained mainly on his reputation and personal credit. By receiving credit on materials for a thirty day period and extending the customers fifteen days

credit, the company maintained a sustaining incoming cash flow.

The company was reorganized and renamed Fuller Manufacturing Co. in 1934 and in 1936 was brought out of receivership. That year, a public stock offering was made, ringing in \$386,000 of new capital, enough to cover the liabilities of the old company and pay each of its creditors every dollar owed at the time bankruptcy proceedings were instituted. Gray remained with the organization as its executive head and under his guidance, managed to survive the depression and profited steadily after 1938.

Manufacture of special transmissions for taxi cabs was discontinued in 1935. The last run consisted of 635 Model TDU transmissions with eight inch diameter multiple disc clutches, build for M.P. Moller Motor Car Co. of Hagerstown, Maryland. In the meantime, the company continued to grow with the demand for heavy duty transmissions for the motor truck industry.

During the war years 1942—45, transmissions were built for military purposes only. The period following was characterized by rapid growth. While expansion was started in 1946, the company ran short of capacity again in 1950. In 1951, a loan of \$2.5 million was secured and 50 acres of land was purchased on Mosel Ave., just north of the Kalamazoo city limits. A plant was erected on this site and tooled to manufacture a ten speed "RoadRanger" transmission initially introduced in 1950. This was followed in 1953 by an eight speed which also was popular in use with the heavier gasoline and mid-range diesel engines. These transmissions were of the single countershaft variety, production of which ended March 31, 1971.

Further expansion took place in 1953 with the purchase of Shuler Axle Co. near Louisville, Ky. Again in 1956, the "RoadRanger" plant was enlarged to house twice as many men and machines. On July 31, 1958, the Fuller Manufacturing Co. and its subsidiaries, Unit Drop Forge and Shuler Axle, was acquired by Eaton Manufacturing Co., presently Eaton Corporation. After three years of operation as a wholly owned subsidiary, it became Fuller Transmission Division.

Late in 1963, the company introduced a "RoadRanger" transmission built on a new and revolutionary principle. These were of the twin (two) countershaft type with "floating" mainshaft. The original idea came from Charlie Perkins who was the chief engineer for the division. These units provided short length, light weight and extremely high capacity. Reception by truck manufacturers was very enthusiastic, and by February of 1977, one million transmissions of this type had been built. The line of twin countershaft transmissions has been expended to cover a range of gasoline and diesel powered engines developing from 600 to 1250 foot pounds of torque and from 150 to 420 HP.

Presently, there are five manufacturing facilities, all producing the twin countershaft type transmission. Fuller "RoadRanger" units account for approximately sixty-five percent of heavy duty truck transmissions on the road today.

James C. Petersen is a resident of Kalamazoo and is an employee of the Fuller Transmission Division of Eaton Corporation. He is an SAH member of several years standing and is especially interested in recording and reporting on the history of automobile manufacturing activities in his local area. This is his first contribution to Automotive History Review.

"Highway Locomotive"—most powerful truck of its day.

The truck had two straight-eight engines—each operating through an individual transmission, drive shaft, and rear axle. The two Lycoming engines developed a total of 270 hp, which made it the most powerful truck in the world. That was back in 1931.

Relay Motors Corporation, Lima, Ohio, built the twin-engine, twin-drive truck as a solution to the problem of providing trucks with sufficient power to move heavy loads at high speeds. The two engines were mounted side by side, with each engine complete with all accessories for its own operation. Also, each engine operated an oil pump and an air compressor required for power controls. All controls—steering, shifting, clutching, and braking—were power assisted, with gear shifting of the two transmissions being done simultaneously or either one separately. Either one of the engines could be cut out when load and road conditions permitted operation at half power.

Rationale for using two power trains was that if a single engine couldn't do the job, two engines could. And, with two engines driving separate axles through separate transmissions and drive shafts, the drive-line

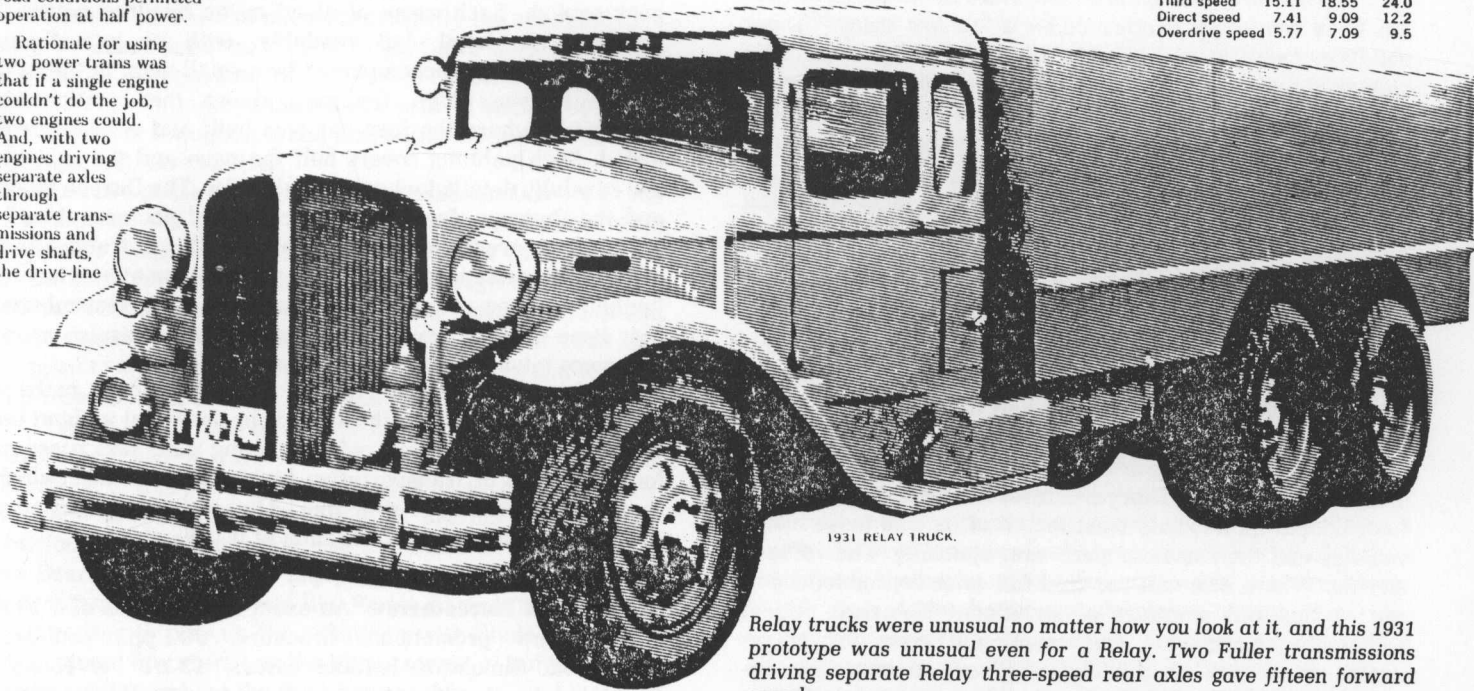
stresses developed by a 270-hp power plant would be kept within safe limits.

Rear axles were Relay pendulum drive type with offset differential housings and were identical, offering three ratio options. One was mounted upside down to accommodate displacement of drive shafts from the usual center line. Each axle was equipped with radius rods and a torque rod. Two semi-elliptic rear springs were used on each side of the frame.

Specifications of this unusual prototype truck, which was used almost exclusively for demonstrations, appear in the table on this page. ■

SPECIFICATIONS OF RELAY DUO-DRIVE

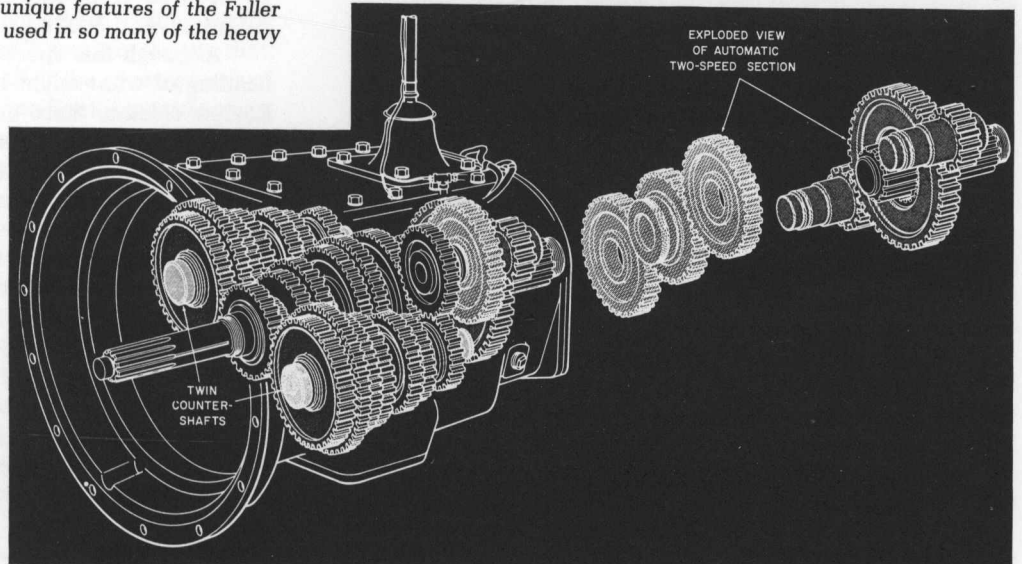
Engines, No., 2	Total piston displacement, 840 cubic inches
Make Lycoming	Total brake horsepower, 270 at 2800 rpm
Model AEC	Total torque in foot pounds, 610 at 2000 rpm
Cylinders, No., 8	Clutches, No., 2
Size 33 $\frac{1}{2}$ -in Bore x 4 $\frac{1}{2}$ -in Stroke	Make Jones
Weight, lbs 950	Type Twin Disk, 10-in diameter
Removable L heads. Four-point suspension. Force feed lubrication to all bearings, by gear driven pumps. Following specifications given for both engines:	Operation Hydraulic
Steering, Hydraulic	Transmissions, No., 2
Rear Axles, No., 2	Make Fuller
Make Relay	Model VUOG
Type Pendulum	Speeds 5 forward
Springs	2 reverse
Front 50 x 3 $\frac{1}{2}$	Selective sliding gear type; mounted in unit with clutch. Universal Gear Shift operated by compressed air, permitting either engine to be disconnected by turning control valve.
Rear, No., 4	
size 54 x 4	
Brakes	
Service 6-wheel	
Operation Air	
	Rear Axle Ratio Options
	Speeds 7.41 9.09 12.2
	First speed 52.3 64.3 86.3
	Second speed 31.1 38.2 51.3
	Third speed 15.11 18.55 24.0
	Direct speed 7.41 9.09 12.2
	Overdrive speed 5.77 7.09 9.5



1931 RELAY TRUCK.

Relay trucks were unusual no matter how you look at it, and this 1931 prototype was unusual even for a Relay. Two Fuller transmissions driving separate Relay three-speed rear axles gave fifteen forward speeds.

This drawing gives an indication of the unique features of the Fuller twin countershaft transmission which is used in so many of the heavy trucks now on the road.



Book Talk

Editor's note: After a great deal of discussion it has become evident that there is a place for book reviews in both the Newsletter and the Review but that the two publications will carry different kind of reviews. The Newsletter will try to inform us quickly and briefly about as many recent titles as space will permit in entries ranging from nothing more than a bare listing of the essential data on the book to those containing several paragraphs to guide the reader in making a buying decision.

The type of article planned for future issues of the Review has been termed by another editor a "review essay." These will be as much as a full page in length and will give the critic enough space to discuss the content and the author's treatment of the subject adequately. No more than two of these essays will appear in one issue, and depending on the material available, some issues may not contain any.

I hasten to add that the two pieces following are not to be considered as examples of review essays.

Historic American Roads. By Albert C. Rose with 109 full-color paintings by Carl Rakeman. Crown Publishers, New York, N.Y., 1976. 118 plus X pages, 9-1/4 x 12-3/8 inches. Original price, \$12.95, recently available from Classic Motorbooks and other sources at under half this figure.

This is a book which should be in the library of every student of American history whatever his special interest and I consider it an absolute must for all of us who make motor vehicles and their use our particular specialty. The value is terrific. Where else can you find full color reproductions of over a hundred paintings of significant historical events, technical achievements and meaningful every-day occurrences each with its detailed and very accurate accompanying textual explanation for such a small price? The reason is that the book was developed from work produced for agencies of the federal government over many years and was issued as a token of participation in the bicentennial celebration of 1976.

The history taught in schools is that of political events. We are left on our own to learn about the development of the surroundings which influence our daily life. Mr. Rose's text carries us from the arrival of the horse on these shores in 1539 to modern superhighways and on the way we learn an incredible amount of both background history and fascinating detail about the development of the road transportation system of this country, the engineering and technical developments of road surfaces, bridges, machinery and vehicles. We begin to realize the significance of streets named "El Camino Real" and "Old Connecticut Path" and we learn that Indian runners could carry a message along the Iroquois trail at the rate of a hundred miles a day, more if one runner did not have to do the whole distance, and that camels were used experimentally in the southwest before the Civil War.

Mr. Rose, who died in 1966, developed this material in the quarter of a century before his retirement from the

Bureau of Public Roads in 1950. His experience in the field of road building extended back to 1907 when he worked as a laborer on street surfacing while accumulating funds for an engineering education. His achievements in the science of road building eventually brought him to a position in Washington where he began to research the material which forms the basis of this book. He became the historian of the Bureau of Public Roads and was responsible for displays and historical highway exhibits prepared for all sorts of events up to and including the New York World's Fair of 1940, and beginning in 1926 for the Sesqui-Centennial Exposition in Philadelphia. After this first exhibit it was realized that there was a need for more historical displays and a series of thirty-five dioramas were begun. The paintings for the dioramas were done by Carl Rakeman whose career as a government artist began in 1921. Together the work of Rose in researching the history and Rakeman in visually portraying it resulted in the 109 presentations assembled in this book.

I cannot emphasize the wealth of historical detail in this book enough. Each essay of about seven hundred words is packed with detail, but readable, with no superfluous verbiage. Most are accompanied by a small map. In the case of the Duryea story, the map shows the locations in Springfield where the first car was built and where it was tested. Each painting covers half the page and the subjects are carefully detailed when this called for. The Duryea buggy and the Dudgeon, for example, are almost photographically accurate, as are those subjects dealing with construction processes and machinery. Landscape subjects sometimes have a "public building mural" flavor, but it must be remembered that some of these works were done for large display areas and were intended to be viewed from a distance.

Although I consider *Historic American Roads* to be a valuable addition to the library. It is professional without being pedantic, educational without being dull, and presents four centuries of transportation history in a manner which should be appealing to everyone. After you read it let your school-age children have a chance at it too.

The Story of Pierce-Arrow. An exact reproduction of a 1930 Pierce-Arrow promotional brochure. 70 pp., profusely illustrated. Simulated leather covers. 13-1/2" x 10-3/8". Reprinted by the Pierce-Arrow Society, 135 Edgerton St., Rochester, N.Y., 14607, 1977. Price \$50.00. (Copies should be ordered from Marc Hamburger, 7185 Riverside Way, Atlanta, Ga., 30328.)

Although this specific brochure doesn't come under the heading of what might be generally associated with a Book Review column, there are reasons, I feel, why *The Story of Pierce-Arrow* should be run past the membership of the Society of Automotive Historians.

For one thing, although technically a piece of sales literature, *The Story of Pierce-Arrow* is so unusual both in format and presentation that it would grace the shelves of any automotive library and take its place with other exceptional sales pieces such as Locomobile's *The Car of 1912* and the enormous *Pictorial Proof of Progress* published by Pan in 1920, for although they aren't exactly 'books' in the true meaning of the word, they bear close scrutiny as being among the most noteworthy examples of Motor Car promotion.

Secondly, by its very exclusive and costly printing, *The Story of Pierce-Arrow*, though published some two years ago, isn't generally known, because obviously review copies weren't possible, and without review copies, there are no

forthcoming reviews. The very fact, coupled with the fact that a limited supply of copies of *The Story of Pierce-Arrow* are available, is ample justification in bringing this magnificent article to SAH attention.

In reproducing the now exceedingly scarce original copies of this item, those members of the Pierce-Arrow Society on whose shoulders that responsibility rested cut no corners in duplicating the original and the result is truly a treasure, a joy to behold and a valuable pictorial and sociological study of its time and place.

Pierce-Arrow never made any excuses about exactly what it built in its line of products and maintained this policy over its 38 years' existence. But of course, let's face it, Pierce-Arrow hardly had a choice. With such formidable rivals as Packard, Cadillac and Ford, there was no comparison in that field. Ultimately, Packard could fall back on its "120" as a bread-and-butter item while marketing its Super Eights and Twelves to the affluent. Lincoln couldn't have survived without Ford and Cadillac had LaSalle. In two of these cases, the cheaper cars would not be necessarily the cheapest cars on the market but even so, if we could give them the bread-and-butter designation, even Pierce-Arrow's attempt to market a car for more of the masses with its Model "80" back in 1924, never brought it bread-and-butter status. Marmalade, perhaps, but never butter!

And in a sense this exclusivity or quasi-exclusivity would contribute to the ultimate demise of the handsome car with the fender lamps. A sideline of trailers couldn't stave off that which could be seen approaching all through the 1930, and which, in 1938, spelled finis to the big car from Buffalo. It had come slowly. Pierce production of 8,422 cars in 1929 had dropped to 6,795 a year later. By 1932, sales had slid to 2,692 and from then on it was a downhill ride.

Pierce-Arrow had joined its forces with Studebaker in 1928 and 1930 marked the mid-point of that interesting marriage. In this prospectus is shown a group of top officials' portraits with South Bend's Albert R. Erskine occupying the position of honor and otherwise identified as "Chairman of the Board and President" implying Pierce-Arrow presidency and nothing else. That was like Pierce-Arrow. There was no good reason to play up the affiliation with Studebaker in its promotional literature and the PR personnel at Buffalo played it low key throughout the dual relationship.

This isn't a catalogue per se but rather what is advertised as being "A photographic trip through the Pierce-Arrow factory showing the uncommon methods which distinguish the building of America's finest motor car." And it is exactly that, highlighting what might have been called the seven graces of successful automobile production, specifically = manufacture, distinction, safety, comfort, performance, economy and value. Each of these is handled succinctly and easily in laymen's language, aptly sprinkled with photographs to show step by step operations and with an accompanying text in black and red ink tastefully printed on its high-gloss egg-shell pages.

Nor is the snob appeal angle missing here. By the use of proper backgrounds and with a reference to "The Blue Book of the Pierce-Arrow" it gets its point across very nicely indeed. No pushing, no shoving, no forcing an issue, but rather emphasizing that there is a type of person who is frequently associated with the product at hand.

Perhaps the statement by B.H. Warner, Vice President in charge of Manufacture, really set the tone when he states: "We never forget for a moment that we are building motor cars for the Pierce-Arrow sort of people."

It was to the "Pierce-Arrow sort of people" that *The Story of Pierce-Arrow* was distributed in the first place. It is to the same sort of person to whom this reprint will have its greatest appeal.

Keith Marvin

From the Readers

continued from page 14

time when it began the regular production of trucks (i. e. in 1912)? The whole matter really boils down to the question of when can a company be said to have a truck in its line?

Incidentally, it is worth noting that both the contemporary trade press and the Locomobile Company itself would have readily endorsed my statement. Take, for example, a fairly typical story in the September 4, 1912 Issue of *The Horseless Age* which opened as follows:

After having placed its first motor truck upon the market only 4 months ago, the Locomobile Co. of America, Bridgeport, Conn., states that this new product has already found such favor with its users that a special department for the manufacture of commercial vehicles is being established at the Company's plant. (p.357)

To sum up, let me simply say this: inherent in Mr. Kahn's argument is the conclusion that the Locomobile Company had a truck in its line before 1912. I would contend that such a conclusion leaves one with a far more misleading impression of the true character of Locomobile production than my statement that "In 1912, Locomobile added a truck to its line."

Sincerely yours,

L. J. Andrew Villalon

A bit of editorial comment on the Locomobile truck issue. The evidence is clear that Locomobile did in fact build vehicles for several years before 1912 with a variety of bodies for special purposes such as fire engines, patrol cars and even delivery bodies. Some of these were mounted on rebuilt chassis, but in some cases there was enough demand so that a special extra-length chain drive chassis was developed especially for fire apparatus. However, Locomobile did not consider these vehicles to be trucks. In fact in those early years everybody made a distinction between "business cars" or "delivery wagons," just two of the terms used to describe such lighter duty vehicles, and "trucks" which were considered to be the more specialized "heavy" vehicles with a load rating in tons.

The earlier Locomobile commercial cars in general could be produced without interruption of the normal methods of assembly. Special bodies were doubtless ordered from outside suppliers and were mounted on the largely unmodified passenger car chassis. The same thing can be said for similar vehicles in the lines of many other makers. It was only when a separately designed chassis requiring separate manufacturing facilities was added that these makers considered themselves to be building trucks.

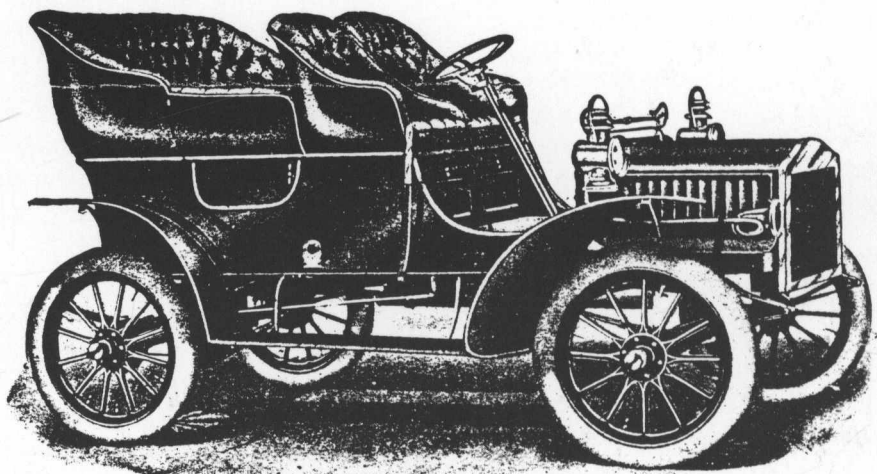
In the language of the period, Locomobile did not build trucks until 1912; in our present day usage of the term to include everything with some provision for carrying a payload besides passengers, then there were earlier Locomobile trucks. In this extreme view, even a curved dash Olds with a little box on back becomes a truck. We would do well to revise our definitions as a separate term to describe this class of vehicle would solve a lot of problems.

THE MICHIGAN

Two Models—"E" and "D."

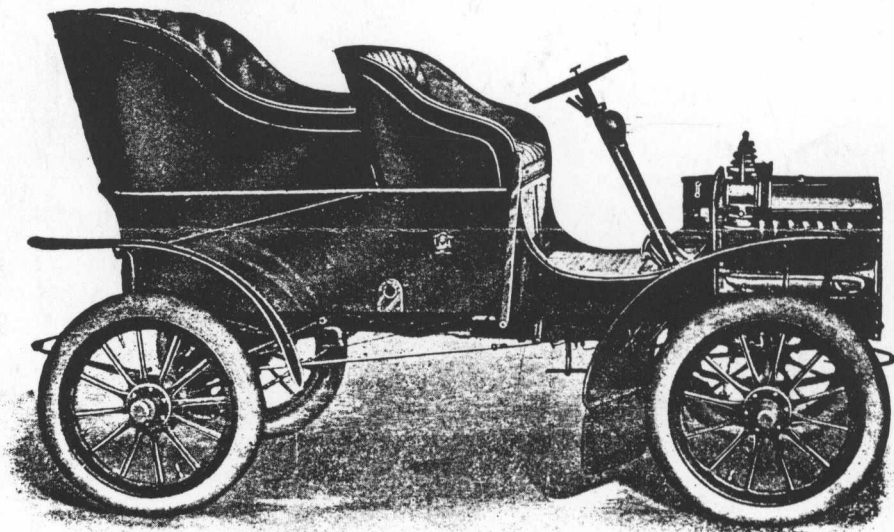
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