SAH Journal

The Society of Automotive Historians

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Contents

Billboard

Wanted: Seeking information on 1938 Berlin to Rome reliability and speed run. Contact David Schmidt: **dtdimhcs@gmail.com**

Wanted: Publication-quality New York (City) Auto Show photos, slides, negatives, hi-res digitals sought by the event's official historian for 125th-130th anniversary update of my 2000 book chronicling the show's first 100 years. What imagery have you for loan or purchase shot at Madison Square Garden, the Grand Central Palace, the New York Coliseum or any of the NYC armories that hosted auto shows? GM Motorama and the NYC hotel Salons are beyond the scope of my book. Contact Gregg D. Merksamer, 1-845-986-6857 (NYS) or **merks62@warwick.net**

Wanted: Contributors! The *SAH Journal* invites contributors for articles and book reviews. With your help, we can continue to feature a steady and consistent stream of material. Please contact the editor directly. *Thank you!*

Front cover: This Model T is one of the featured Ts in our "Dust Bowl" article from David Lyon. This period image, and the other period images in the article, were colorized. There's a valid argument that this alters the authenticity of the photos. However, in this case, it does make the images more real in their ability to draw a reaction—the high stakes involved in that era of American history.

Back cover: In sharp contrast to the cover, this 1929 Rolls-Royce Springfield Phantom (S305LR) Brewster Ascot is one of the cars on display at the Gilmore Museum, also featured in an article from David Lyon covering the origins and aspects of the museum. In further contrast, much is known about the Rolls-Royce, while nothing is known about the Model T on the cover, which was a motivating factor to have it on the cover.

SAH Journal

THE SOCIETY OF AUTOMOTIVE HISTORIANS, INC.

An Affiliate of the American Historical Association

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President's Perspective

Time passes quickly and with its passage comes change. The year 2025 will be known as a year of change for SAH. In a few short months, we will convene for our annual SAH Awards Banquet on September 20, 2025, in Flint, Michigan. We hope to draw more attendees by decoupling it from the AACA meet in Hershey, moving it to a Midwest venue, and holding it on a weekend. The location for this year's banquet is the restored Factory One of the Durant-Dort Carriage Co., recognized as the birthplace of General Motors (**gmfactoryone.com**). SAH Vice President *Chris Lezotte* and her committee are working on a several automotive related sites to visit while in town, so be on the lookout for more details.

Even with the move of the banquet, we will still have a presence in Hershey. The SAH tent will again be in its traditional home in the orange field. For the third year, we will again be partnering with the AACA Library and the Buick Heritage Alliance to present our Authors' Book Signing behind the library. If you're at Hershey in October, please stop in to say hello.

As I look back on the last issue of the *Journal*, I realize that it was just prior to the 2024 running of the Indy 500. As I write this, it is now less than three months to the 2025 running of the "Greatest Spectacle in Racing." With that, allow me to call your attention to *Rubén Verdés'* Editorial in this edition. Rubén, like most other SAH members, volunteers his time to pull together what has grown from a bimonthly newsletter to a periodical magazine in just a few short years. With few exceptions, our Society depends on volunteers (NOT paid staff), and I am thankful to the many hours that our members dedicate to the advancement of our community. To that end, if there are members interested in volunteering to assist with one or more of the many tasks it takes keep things running, such as participating in (or forming) a local chapter, helping set up the Authors' Book Signing during the AACA Eastern Fall Meet, serving on the planning committee for the anticipated return of our Automotive History Conference, or, as Rubén offers, if you want to take on (or help) writing, editing and publishing the *Journal*, let us know. We can always use a few more good volunteers!

My "auto biography" photo this month is also all about change, at least in my life. That's me behind the wheel of our 1978 Buick Skyhawk in 2003. It's a car that my wife drove when we first started dating, just before I began my career with General Motors in 1979. After sitting for several years in my in-laws' garage, the car needed some major underbody work, but my then thirteen-year-old son encouraged and helped me to get it restarted and cleaned up to have on the field-of-show for the Buick Centennial meet in Flint that year. Shortly after that photo was taken, following the show, we sold the car to a Buick enthusiast who said it reminded him of the car he and his wife drove on their honeymoon. I cringed a bit when he said he planned to modify it so it looked like the '76 he once owned, but it wasn't our car any longer. We saw the car again in 2019 at the Back to the Bricks car show in Flint. It had indeed been modified but had also changed hands once or twice in the sixteen years since we sold it. Seeing it again brought back a lot of memories, and the photo of me, my son, and the car sits in a frame on my desk. Now in his thirties, my son has been with GM himself for more than eleven years, now working on the development of battery electric trucks. I'm now in my 46th year with General Motors, and plan to keep going a few more, working to preserve a heritage, including that of my own family, that spans nearly 140 years of personal transportation manufacturing.

—Kevin Kirbitz

*Editor*ial

Please let me present this special issue of the *SAH Journal*. It's "special" because it's five issues combined into one (80 pages vs. 16 pages), and allowed for the presentation of content of length that would not usually fit in a regular edition. It is also true that it covers a period that was absent of regular circulation—which was unintentional, and for which apologies are in order. I do enjoy producing this publication, but it doesn't belong to me. My first issue was #257 (Jul/Aug 2012) and now totaling 76 issues up to #332. I greatly enjoy my role as Editor, and I enjoy producing the *SAH Journal*. However, it is not my aim to treat this position as mine to hold. If someone else wants to take over, I will yield. Until then, I'm very happy to continue, and hope you will enjoy this issue and those to come.

—R. Verdés

Photo 1. A Dust Cloud is reminiscent of Black Sunday, April 14, 1935 (FSA-Rothstein)

The Social Impact of the Model T Ford in the Dust Bowl

By David O. Lyon

"1927 made seven thousand dollars in cotton. 1928 broke even. 1929 went in the hole. 1930 still deeper. 1931 lost everything. 1932 hit the road. 1935 fruit tramp in California."

That brief quotation is from the father of a migrant family at a California work camp in 1935, and it captures the circumstances and the ensuing social impact on many families during the Dust Bowl and the Great Depression of the 1930s.

Automobile literature typically uses one or more of the following themes: Design & Style, Mechanical Innovation, and Social Impact in describing the history and function of an automobile. The purpose of this writing is to describe the Social Impact of the Model T Ford during the era of the Great Depression and the Dust Bowl migration in the 1930s. That description rests heavily on photographic evidence and quotations from participants, poets and authors who wrote about life in that period.

While the Social Impact theme is easily defined, the evidence of the Ford's Social Impact, or for that matter any automobile, is disparate. The theme cannot be conveyed with a single photograph, and fourteen photographs are presented here to set the stage and the ensuing place, time and context of the Social Impact of the Model T Ford. The photographs are from the depository of the Farm Security Administration (FSA) in the Library of Congress. Ten photographs are from the collection of Dorothea Lange, and three are by Arthur Rothstein, a second FSA journalist. The photographer for the image of Dorothea Lange is unknown. The vintage photographs were colorized by Phojoe, in Clarkston, Michigan, to emphasize the human detail in the selected images.

The stock market fell precipitously on Black Thursday, October 24, 1929, and subsequently ushered in America's Great Depression of the 1930s **(photo 1)**. Drought conditions across America's central plains began in the summer of 1930, and eventually the arid

winds blew much of the dry soil from America's heartland as far east as New York City. The worst years were 1934 through 1936, and then again in 1939 and 1940. Black Sunday, April 14, 1935, is considered the most devastating day of all, and that memory is captured in the title of Michael Cooper's book *Dust to Eat: Drought and Depression in the 1930s.*

The drought gave rise to the Dust Bowl migration of an estimated 2.5 million souls from the farms of Texas and rural mid-America and is considered one of the largest in American history. That history, the human misery, and the images linger still in the country's memory as a time of great hardship, sorrow and perseverance. Farms across Texas and the Midwest were buried in dirt and sub-

Photo 2. The Dust Bowl's aftermath: a deserted farm near Dalhart, Texas in 1936 (FSA-Rothstein- faint tint)

sequently deserted. A farm in Cimarron County, Oklahoma, was photographed by Arthur Rothstein in April 1936 **(photo 2)**. The American citizens who abandoned these farms became a part of this grand migration and were identified as migrants, refugees and Okies. Initially, Okies referred to migrants from Oklahoma, but the term was often applied with much disdain to anyone on the move west no matter their state of origin.

The U.S. Farm Security Administration (FSA) understood the historic impact of the economic and cultural circumstances of the period. They hired fifteen photojournalists who crisscrossed this nation from 1934 to the onset of World War II in an effort to record the environmental devastation as well as the human misery of the period. In so doing, their photography also recorded the perseverance of the migrants and the eventual triumph over the economic downfall of the Great Depression.

The photographs recorded by those resilient artists now reside within the Farm Security Administration (FSA) archives of the Library of Congress. Most of the images are in black and white, although a few are in color and others, as shown here, were subsequently colorized. Dorothea Lange **(photo 3)**, born in 1895, is one of the most celebrated of those journalists. She contracted polio in 1902 which left her with a distinct limp. Her father deserted the family in 1907 leaving them almost destitute. One historian opined, "Her limp created an instant rapport with the Dust Bowl refugees, and her troubled life allowed her to identify with the poverty and despair which she photographed." In turn, Lange opined, "I had to get my camera to register things that were more important than how poor they were—their pride, their strength, their spirit. . . .The pageant is vast and I clutch at tiny detail."

Photo 3. **Dorothea Lange, atop her 1933 Ford station wagon (FSA-unknown-Phojoe)**

Photo 4. "Listen to the motor. Listen to the wheels. A change in tone may mean a week here" (FSA-Lange-Phojoe) published in *Dust to Eat: Drought and Depression in the 1930s*

Lange captured that tiny detail in a photograph of a family in August 1936 with a well-worn 1923 Model T Ford coupe **(photo 4)**. The 35-year-old father is a painter by trade and suffers from tuberculosis. He sought support from the Oklahoma Relief Agency but was told he was entitled to only $7.00 every two weeks. They lost their home and their furniture and were on the road in their very well-used Ford seeking relief support and work in Texas. These are proud people, and the Ford remained their precious possession. The four daughters are well dressed, perhaps to provide an image of well-being, and serve as social comfort under challenging conditions. Although they were not "Dust Bowl Migrants," the family's story was not uncommon in this era. John Steinbeck's novel *Grapes of Wrath* based on this period offered a simple warning; "Listen to the motor. Listen to the wheels. Listen to the pounding of the old

jalopy, a change in tone may mean a week here." The old Ford was both life and future for these desperate souls.

Many migrants did survive and eventually most did prosper, but some 400,000 Americans were forced out of their homes and migrated west to California, where they thought they would find farmland and a livelihood. They walked, they hitchhiked, they rode the rails and traveled in various and sundry automobiles. The collage of photographs from the FSA collection, however, suggests that the Model T Ford was the preferred conveyance on which these families depended.

One might argue that the selection of the Ford could have been determined, in part, by the fifteen million Model T Ford vehicles that were built. Approximately six million American families lived on a farm in 1930, which was about 20% of the population. Quite simply, the Model T Ford was the most available and therefore the vehicle of choice for many American farm families. The open Ford often with a tattered top or no top at all, seemed to reflect the life and times of those who drove it, creating an unbounded tie between the vehicle and its human contents. **Photo 5** is of a Ford truck in 1937 piled high with household goods is by Arthur Rothstein, one of the fifteen FSA journalists, and it illustrates the desperation of the times. Certainly, the Ford vehicle was not perfect, but the car was inexpensive, reliable and easy to repair; "all you needed for repairs was a bit of fence wire and a pair of pliers," was the often-heard claim by period drivers.

Photo 5. **"All you needed for repairs was a bit of fence wire and a pair of pliers" (FSA-Rothstein-Phojoe)**

Photo 6. **The 1923 Model T Ford with a family of six onboard, May 1937 on an Arizonia highway (FSA-Lange-Phojoe)**

Production of the Model T Ford began in August 1908 and totalled 10 million by 1924 and 15 million by April 1927 when the Model T production line was shuttered. The spindly inexpensive Model T Ford **(photo 6)** was built with vanadium steel and was the perfect carriage for many displaced families. The body sat high on the wheels with a simple buggy spring fore and aft that provided good road clearance, and the triangular suspension system protected the car from the damaging twists and turns of America's primitive roads. The two-wheel mechanical brakes were adequate and made the car less expensive than other marques with four-wheel brakes in the decade of the Depression. The pedal activated transmission was easy to operate, and allowed the driver to ". . . get into high without bounding down the road like a frog with St. Vitus dance," wrote poet John Keats.

The Model T Ford was resilient enough and cheap enough to lift society up to conquer America's primitive roads and the constraints of this nation's geography. The car, the times, and life's challenges in the Great Depression were summed up succinctly by an 80-year-old grandmother as she sat in a Model T Ford photographed by Dorothea Lange **(photo 7)**. "If you lose your pluck, you lose the most there is in you—all you've got to live with." Historically, the Model T Ford, built prior to 1928, stands alone for its social impact during those harrowing years of the 1930s, and perhaps in all of American automotive history.

Simply put, for many families the Model T Ford made much of the Dust Bowl Migration of the 1930s possible and no other automobile can be so deeply identified with such a massive, impactful and enduring social change in American history. Perhaps that is an outrageous claim, but of all the cars built prior to the Great Depression, the Ford Model T appears most often in historic photography of the Dust Bowl and the ensuing Dust Bowl migration. The Model T Ford is just about the only car that was photographed alone without Dust Bowl migrants as though Dorothea Lange and her colleagues thought the car itself reflected the story of the economic devastation.

Photo 7. "If you lose your pluck, you lose everything that is inside you" (FSA-Lange-Phojoe)

Photo 8. **"She carried me to hunt, she carried me to marry" (FSA-Lange-Phojoe)**

Photo 8 of a well-worn Model T Ford with no top and a man with a torn shirt and crumpled hat sitting on the steps outside a building depicts the era and the context. This image was selected because together the man and the car provide a portrait of the sorrow and the desperation of the Depression and the ensuing migration. There is an undeniable tie between the two. "She carried me to hunt, she carried me to marry without a single grunt or suggestion to tarry. Along the countryside and down by the river, I've enjoyed every ride in that dear old flivver," wrote a young man with affection about his Model T Ford.

In the same manner, Lange's photographs of a single Model T Ford, and she took many, also captured the desperation of the journey as though the car itself reflected the human struggle of those who drove it. **Photo 9** by Lange of a single Model T Ford is instructive. John Steinbeck described the situation succinctly. "The man drove his family in and became a citizen of Hooverville, they were always called Hooverville." The name was derived from President Hoover, of course, as most Americans at the time blamed the Great Depression on his economic policies.

Photo 9. **"The man drove his family in and became a citizen of Hooverville" (FSA-Lange-Phojoe)**

Photo 10. **"Life is tough anyway you take it:" family stranded on the roadside, 1936 (FSA-Lange-Phojoe)**

Dorothea photographed a family of five along the highway between Dallas and Austin, Texas, in 1935 **(photo 10)**. They hoped to reach the Arkansas Delta where they might find work picking cotton. The family is penniless, with no food and three gallons of gas in the tank. The father is attempting to repair the car. "It's tough, but life is tough anyway you take it," he says before returning to the task at hand. Lange took numerous photographs of this situation, and did so always with the family in or near the Model T Ford as though the vehicle provided the essence of the story.

Lange captured the image of the "Pea Pickers" **(photo 11)** in March 1936, somewhere on a farm near Nipomo, California. This Model T Ford, and the headlamps suggest it is a 1915 model, it has been converted into a "motorhome" of sorts, a conversion that was typical with the Model T Ford. The couple's wooden bed protrudes from the back of the vehicle. Their clothing, including his sport coat and her matching hat and coat, suggests they were "townspeople" and did not leave a farm behind. "Ma'am, I've picked peas in California from Calipatria to Ukiah. This life is simplicity boiled down," opined the husband as he sat on his "running board pulpit." While his comment does not concern the Model T Ford, the setting and the vehicle provide an important social context for the era. Interestingly, Lange photographed marques other than the Ford, but never seemed to attribute as much importance to those vehicles as she did with the Model T Ford.

Photo 11. "This life is simplicity boiled down," Nipomo, CA, March 1936 (FSA-Lange-Phojoe)

Photo 12. **May 1937, "We ain't made a crop there in five years" (FSA-Lange-Phojoe)**

In May 1937, Dorothea Lange found a caravan of migrant workers from farms near Claremore, Oklahoma, which was led by a 1920 Model T Ford truck **(photo 12)**. They had worked in California and were driving to Arizona to pick cotton, but the cars behind them were having trouble and the desperation is most evident. "We would go back to Oklahoma, but we can't get along there. Can't feed the kids on what they give you (relief budget) and ain't made a crop there in you might say for five years. Only other work there is fifty cents a day wages and the farmers can't pay it anyway."

An isolated photo of a well-worn Model T Ford was taken in February, 1939 **(photo 13)**, so the car was at least twelve years old. It is an important image by Lange because it is one of several photographs of a single Model T without people adjacent to the vehicle. She never isolated any vehicle other than the Model T Ford in this manner. She offered the following comment about this car in 1939: "Model T's still carry migrants," as though even she found the prevalence of the Model T Ford surprising. No other marque from the Model T Ford's vintage can be found in such numbers among her photographs.

Photo 13. **Lange opined, "Model T's still carry migrants," Nov. 1936 (FSA-Lange-Phojoe)**

Photo 14. The last Model T survivor outside of Eugene, Oregon, Aug. 1939. (FSA-Lange-vintage)

Certainly, Lange did record other marques, including a 1926 Buick, a 1925 Dodge Brothers, a 1926 Hudson, a 1930 Model A Ford and a Phaeton which appears similar to a 1924 Barley. Those photos captured a social setting, in which the automobiles seemed secondary to the people. However, not with the Model T Ford. The Ford itself told an important story, which she isolated and seemed to emphasize. **Photo 14**, taken October 1939 near Eugene, Oregon, illustrates the point. Lange titled the image as "The end of the Model T abandoned in an open field. . . "

That simple image of an isolated Model T Ford on bare wheel rims serves as the final photograph of the Dust Bowl Migration and the final expression of the Model T Ford's social impact during the decade. The migration was over, and the primitive Ford was no longer needed except, perhaps, as an eventual collector's item. However, this image and the supporting cast of Model T Ford photographs in various locations across the American highways of the southwest strengthens the description of the Model T Ford's social impact in the Dust Bowl migration. Also . . . perhaps, and just perhaps, it strengthens the brash conjecture that the Model T Ford made that migration and life itself possible for many families.

David O. Lyon (the writer of this article and the Gilmore article), is a life-long educator, now retired from 35 years of service as faculty, department chair, interim dean, and director of collective bargaining at Western Michigan University. Lyon's service goes further. In 2010 he utilized his skills writing and photographing a book contributing his entire effort to the Gilmore Car Museum so that that museum would have a book telling its story to sell in its giftshop. Two years later, he created an expanded second edition of *Miles from the Ordinary* for Gilmore, and another two years on, a third edition. Just this year he created the heavily revised and updated fourth edition for Gilmore. That book has now been published and is available. It's a beautifully presented and eruditely written tribute to Donald and Genevieve Gilmore and the ever-growing and changing salute to all things automotive that the Gilmore complex of museums has become. (*hvh*)

Behind the podium, all the contending books and media for SAH awards arrive and are placed for display.

The Annual SAH Awards Presentation

Hershey, Pennsylvania

The Annual Meeting of Members & Gala Awards Banquet took place on Wednesday, October 9th, at the Hershey Country Club during *"Hershey"*—the AACA Eastern Regional Fall Meet (Tuesday through Friday, October 8-11). The 2025 Awards Banquet will be held on Saturday, September 20, 2025, at GM's Factory One in Flint, Michigan. Here are the awards, descriptions and the 2024 recipients:

Carl Benz Award (CBA):
"Too Clever by Half/Claveau, the Front Drive Years" by *Karl Ludvigsen*, published in the October and November, 2023 issues of *The Automobile*.

The Benz Award recognizes the periodical article or series published during the previous calendar year which exhibits the most original research and outstanding writing in automotive history. The award is named for Carl Benz, who built the first vehicle propelled by an internal combustion engine. Benz's three-wheeled vehicle was built in 1885 in Mannheim, Germany. The Benz Award was first presented in 1982. From 1972 until 1981, awards for periodical articles were made as part of the Cugnot Award.

On behalf of *Don Keefe,* the award was presented by *Dennis David*, who read a message sent by the author, *Karl Ludvigsen:*

Why did an author best known for his Porsche writings give attention to an obscure French marque? I can only confess that for me the weirder the car, the better. And they don't come much weirder than the cars of Emile Claveau.
Well, they were weird by the standards of 1926 when Claveau revealed his first rear-engined prototype to a startled world. I'm reminded that he followed the teachings of René Descartes, which can be summarized as follows:

- I always had a strong desire to learn to distinguish the truth from the falsehood, to see clearly in my actions and to march with assurance along the chosen path.
- It is difficult, by only using the work of others, to achieve anything perfect.
- There is not as much perfection in work composed of several pieces made by different masters as that wrought by one alone.
- Buildings undertaken and completed by the same architect are likely to be more beautiful and better ordered than those where several have tried to accommodate outworn ideas which have been coined for other purposes.

These precepts guided the logic of Claveau, whose training at the Lyon School of Fine Arts liberated him from the conformity of most motorcars. Like Austria's Edmund Rumpler he began with engines in the rear, only to change his mind to build front-wheel driven vehicles. Neither man was blessed with automotive commercial success.

Emile Claveau was still advancing and protecting new ideas in the mid-1960s when he patented a form of disc brake. Casting widely to find a customer, he contacted Ford of France in Paris. He scored a meeting with marketing manager Bob Lutz. "He is a fascinating old gentleman," Bob wrote to me, "who has been trying all his life and with only modest success to introduce rational, revolutionary

Dennis David *reading* **Karl Ludvigsen's** *message while* **Kit Foster** *holds the Carl Benz Award.*

design concepts into an industry which, outward appearances to the contrary, is often reluctant to accept real change."

Thanks very much for honoring Claveau as well as myself with the Carl Benz Award.

—Karl Ludvigsen

Kit Foster *holds the Nicolas-Joseph Cugnot Award as* **Chris Lezotte** *announces the winner.*

Nicolas-Joseph Cugnot Award (NJCA)

The Cugnot Award is presented for the book published during the previous calendar year which represents the most outstanding writing and original research in automotive history. The award is named for Nicolas-Joseph Cugnot, a French Army officer who is generally acknowledged to have built the first self-propelled vehicle. His steam-powered fardier, built in 1769, was designed to be an artillery tractor; its likeness appears as the Society's emblem. The Cugnot Award was first presented in 1972, and the award for books written in a language other than English was first presented in the year 2000. The Award of Distinction in each category recognizes works of exceptional merit.

NJCA: English Language (EL):

***Kim: A Biography of M.G. Founder Cecil Kimber* by Jon Pressnell, published by Dalton Watson Fine Books. ISBN: 978-1956309119**

On behalf of *Ed Garten,* the award was presented by *Chris Lezotte:*

M.G., the world's most-loved make of sports car, was created in the 1920s by Cecil Kimber—affectionally known as "Kim," he rose above disability, with his energy, enthusiasm and vision and became a leading figure in the British motor industry.

Initially placing sporty bodies on Morris chassis, within a few years he had built M.G. into the leading European manufacturer of sports cars, with an impressive record of competition successes.

He survived industrial upheaval only to fall victim to the venomous internal politics of M.G.'s parent company. Cecil Kimber was a man of surprising contrasts and Jon Pressnell gives us the colorful story of the man behind those famous initials—M.G.

Jon Pressnell is a journalist and automotive historian. Best known for his contributions to *Classic & Sports Car* magazine, for which he has written since the 1980s, he has a reputation as a rigorous and original researcher. Amongst his books are histories of the Mini, the Citroën Traction Avant and DS, and the Austin-Healey. Jon Pressnell lives in southwest France. He has been an M.G. owner for more than 30 years.

NJCA: Language other than English (LOE):

***Star: Kolebka Polskiej Motoryzacji* (Star: A Cradle of Polish Automotive History) by Robert Przybylski, published by Autopress. ISBN: 978-8393200788**

On behalf of *Arthur Jones,* the award was presented by *Chris Lezotte:*

The Cugnot Award for books on automotive history in language other than English casts a new light on the immediate post-World War II period when manufacturers were struggling to find new markets for locally built vehicles which had been dominated by imports in the older days. The Polish market was mostly American designs built under license but in Czechoslovakia German influence was dominant.

Star is a truck brand derived from Starachowice—a city in central Poland where the trucks were made. The book tells about the meanders of the truck factory from humble beginnings with primitive machinery that made it impossible to implement all planned variations of the Star 20, some sponsored by the military, with ambitious projects through the 1960s with V-engines and independent suspension, most of which required expenditure that the state owner could not afford. In the 1970s, the Star family entered production and became the high point in the factory development. These remained only in the form of prototypes.

The next decade turned out to be a wasted period and the plant, like society, was not prepared for the new reality brought about by the political changes of the nineties. Even the late product

modernization carried out by the new owner, MAN, did not help and the truck factory became a thing of the past. Despite its rarity, there are several books in print that cover the make history but none to the level of detail of Przybylski's work, and period photos such as those included are hard to come by.

—Arthur Jones

NJCA-LOE: Award of Distinction:
***Encyclopedie Motocyklu, Ceske a Slovenske Motocycly od Roku 1899 po Soucasnost* [Encyclopedia of the Motorcycle: The Czech and Slovak Motorcycle from 1899 to the Present], by *Marián Šuman-Hreblay,* published by CPress. ISBN: 978-8026436126**

The committee has granted an Award of Distinction to *Marián Šuman-Hreblay* for his *Encyclopedie Motocyklu, Ceske a Slovenske Motocycly od Roku 1899 po Soucasnost* [Encyclopedia of the Motorcycle: The Czech and Slovak Motorcycle from 1899 to the Present], published by CPress. This book covers the total product of the Czech motorcycle industry from it beginning with Laurin & Klement in 1899 and the Slavia trike of 1901 to current models. Jawa and CZ have always been the most popular makes and led the drive for exports even to the USA. The reviewer remembers the Jawas of the fifties, displayed in small town dealers' windows and their ridiculously low prices. "Iron Curtain Motors" we called them to the dismay of the salesmen. When the high-tech, hi-speed Japanese machines arrived on the market, Jawas became history. Suman's book is richly illustrated, mostly in color, and it seems that the bikes are treasured since even the old models are shown restored in museums.

—Arthur Jones

James J. Bradley Distinguished Service Award:
The Automotive Hall of Fame, 21400 Oakwood, Dearborn, Michigan (See: automotivehalloffame.org)

Award presented to a deserving library or archive, or to an individual within such an organization, for the preservation of historic materials relating to motor vehicles of the world. It is named in memory of James J. Bradley, noted curator of the National Automotive History Collection at the Detroit Public Library. The Bradley Award was first presented in 1982.

On behalf of *David Schmidt,* the award was presented by *Chris Lezotte:*

The Automotive Hall of Fame was established in 1939 in New York City by the "Automobile Old Timers" club. Its original mission was to honor and perpetuate the memory of the early pioneers who helped shape and build the auto industry. Over the next twenty years the Hall established itself as both a museum and a hall, broadening its objective to not only recognize the contributions of auto industry leaders, but to serve as a respected resource for the preservation and dissemination of automotive history. Under new leadership in 2019, the Hall's educational mission was expanded. Through its Honoree lecture series geared toward high school and college students, accessible video interviews with some of the auto industry's great minds, an online blog which highlights the AHF's latest historical research, and a monthly newsletter complete with insider stories and resources, the Automotive Hall of Fame is able to share its considerable automotive knowledge and materials with scholars and enthusiasts alike. The Hall is also part of an educational network partnering with learning institutions in the greater Detroit area. Such efforts bring automotive history to the next generation of auto enthusiasts and historians [and potential SAH members!].

In February of 2023, the Automotive Hall of Fame installed "Achievements," a first-of-its-kind exhibit that detailed the innovations, inventions, and leadership of African Americans in the auto industry. Women in automotive history have also received renewed attention in the Hall, with successful symposiums as well a new exhibit on the horizon.

For exemplary efforts in preserving and providing access to motor vehicle resource materials, and for the acquisition and promotion of new and unexplored resources for the under-represented in automotive history, the SAH is proud to name the Automotive Hall of Fame as the 2023 James J. Bradley Distinguished Service Award winner.

—David Schmidt

Mark Forbes receives the Richard P. Scharchburg Award from **Chris Lezotte**.

Richard P. Scharchburg Student Paper Award
Mark Forbes, "Navigating the Great Depression: Independent Automakers and Their Leadership within a Business Cycle"

In order to encourage research and writing effort among university students in the area of automotive history, the Society confers its annual award for the best student paper in the auto history field. Persons submitting papers must be enrolled at educational institutions (upper-class undergraduate or graduate level) at the time of submission. Possible subjects include but are not limited to historical aspects of automobile companies and their leaders, regulation of the auto industry, financial and economic aspects of the industry, the social effects of the automobile, highway development, environmental matters, and automotive marketing, design, engineering and safety. The award was first presented in 2001. It was renamed in 2008 in memory of SAH director, officer and professor Richard P. Scharchburg.

On behalf of *John Mohr,* the award was presented by *Chris Lezotte:*

The Scharchburg Committee is pleased to present the award for Best Graduate Student Paper to Mark Forbes for his paper entitled "Navigating the Great Depression: Independent Automakers and Their Leadership Within a Business Cycle." Mark is a third-year PhD candidate at McMaster University in Hamilton, Ontario, Canada. Mark's research focuses on the application of business and economic theory to the history of transportation. The committee was impressed with the depth of research and methodology behind his paper. With the presentation of this award, Mark becomes the only two-time Scharchburg Award winner. The committee is pleased to present Mark with the award a second time, and wishes him the best in his further endeavors.

—John Mohr

West Peterson *receives the Richard and Grace Brigham Award from past SAH President* **Andrew Beckman** *(r) and SAH President* **Kevin Kirbitz**.

Richard and Grace Brigham Award (RGBA):
Antique Automobile
Official Publication of the Antique Automobile Club of America
***West Peterson,* Editor**
ISSN: 0003-5831

The Brigham Award is presented to the periodical which exhibits the best overall treatment of automotive history over all issues published during the previous calendar year. A publication may receive the Brigham Award only once in a five-year period. Mrs. Brigham and her late husband, both founding members of the Society, started the Society's newsletter, now SAH Journal*, and magazine,* Automotive History Review. *The Brigham Award was first presented in 1990.*

The Richard & Grace Brigham Award is presented to the commercial, institutional or club periodical that presented the most exemplary editorial, graphic or historical content relating to automotive history in the previous calendar year. It's been said that the strength and vitality of a car-based organization is often in direct proportion to the quality of its publication, and the 2024 Brigham award winner is certainly no exception. The Society of Automotive Historians was delighted to present the 2024 Richard & Grace Brigham award to *Antique Automobile* magazine, the official publication of the Antique Automobile Club of America (AACA). The award was accepted by editor West Peterson, who recognized the magazine's many contributors and past editors for their roles in its success.

—Andrew Beckman

Lee & Sara Schopmeier receive the Award of Distinction from SAH President **Kevin Kirbitz** *for* **Air Cooled News**.

RGBA: Award of Distinction:
Air Cooled News
An Official Publication of the H. H. Franklin Club
***Alex Huppé,* Editor**

The Brigham Award committee also bestowed a special Award of Distinction to *Air Cooled News,* the official publication of the H.H. Franklin Club edited by *Alex Huppé* and Jeryl Schriver. The committee cited the *Air Cooled News'* excellent mix of club event coverage, technical information and historical content combined with high quality design and presentation. Mr. Huppé and Ms. Schriver were unable to attend the banquet, and the award was accepted by Franklin Club members Sara and Lee Schopmeier.

—Andrew Beckman

E.P. Ingersoll Award:
Mike Shears, creator/webmaster
Americanautoemblems.com

The Ingersoll Award recognizes excellence in presentation of automotive history in other than print media. E.P. Ingersoll was editor and proprietor of The Horseless Age*, the first motoring magazine in the United States, and was instrumental in organizing the first vehicle trade organization. The Ingersoll Award was first presented in 1992.*

On behalf of *Mark Howell,* the award was presented by *Chris Lezotte:*

This website is a detailed repository that covers a diverse variety of American automotive makes and models dating from the horseless carriage era up to the postwar period. What makes this site unique is that it features a large number of historic photos and images that

Mike Shears receives the E.P. Ingersoll Award from **Chris Lezotte** *(r) SAH President* **Kevin Kirbitz** *for Americanautoemblems.com.*

complement the emblems being displayed. Auto emblems are just part of the material to be found on the site, with vehicles listed alphabetically to facilitate navigation and identification. Exploring **americanautoemblems.com** is like wandering through an antique shop or flea market; once you start looking at emblems, you find yourself falling down a rabbit hole of American automotive artifacts. The website is a wonderful example of what the E.P. Ingersoll Award represents, and that's why it's the recipient of this year's honor.

—Mark Howell

Friend of Automotive History Award:
Ken Gross

> *A person who has exhibited outstanding service in, and made outstanding contributions to, the field of automotive history may be named a Friend of Automotive History. This award is not limited to members of the Society. It was first presented in 1983.*

This year's Friend of Automotive History has enjoyed a long and distinguished career centered around automotive history. He previously served as executive director of the prestigious Petersen Museum in Los Angeles, California, and has enjoyed a five-decade stint as a automotive author and journalist. He has personally curated massively successful automotive design exhibits at art museums from coast to coast and is frequently seen judging at the top Concours d'Elegance events. The Society of Automotive Historians is proud to honor *Mr. Ken Gross* as its 2024 Friend of Automotive History. Ken has attended every Hershey show since the Carter administration but unfortunately had to break the streak this year due to commitments at the Chattanooga Motorcar Festival. However I (FAH Award Committee Chair Andrew Beckman) am heading to Chattanooga immediately following Hershey, and will present the award to Ken there.

—Andrew Beckman

Shortly after the event, SAH President **Andrew Beckman** *(l) caught up with* **Ken Gross** *to deliver the Friend of Automotive history to Ken.*

Socializing during the awards banquet at the Hershey Country Club.

SAH President **Kevin Kirbitz** *delivers opening remarks for the awards presentation.*

Tom Warth *(below, with* **Chris Lezotte***) surprised SAH founding member* **Bill Jackson** *(l) and* **West Peterson** *to shoot this photo (above). Both share being Editor of* **Antique Automobile** *(Bill from more than five decades ago). There's much more to say about Tom too, but with little space, please click on the QR Code next to him in the image below (hint: the yellow pin on his lapel says "Books for Africa").*

Scharchburg award winner, Mark Forbes (for his article "Navigating the Great Depression"), delivers remarks during the awards presentation.

Ingersoll award winner, Mike Shears (for Americanautoemblems.com), delivers remarks during the awards presentation. (Below: the SAH Editor ambushes attendees at their tables during the banquet.)

THE SUN

COVERING HERSHEY, HUMMELSTOWN AND LOWER DAUPHIN COUNTY

115 SOUTH WATER STREET
P.O. Box C

HUMMELSTOWN, PENNSYLVANIA 17036
717/566/3251

H - (717) 832-7338

May 2, 2022

Mr. Ruben L. Verdes, Editor
SAH JOURNAL
7491 North Federal Hwy, Ste.C5337
Boca Raton, FL 33487-1625

LETTER TO THE EDITOR: This letter is a "coda" for the image of *Bill Jackson* on the previous page. It's also a footnote to Bill's presentation during last year's Hershey event, and (again in connection with the photo) comments about the passing of *Don Peterson, West Peterson's* father. Happily, this is the first opportunity to print the letter in its entirety (with highlights on the publications discussed).

Dear Ruben:

Was saddened by the reports of the passing of Dave Brownell and Don Peterson in the January-February 2022 JOURNAL. Both were friends of long standing from the years I was directly involved in automotive journalism. Both were part of our gang of automotive history types who got together each year on Wednesday night of the Hershey Fall Meet weekend.

As I was the "local" it was my job to find a suitable eating and drinking spot away from the Hershey crowds where we could spend an evening together. I initally took them to Harry's Bar at 14th & Vernon Streets in Harrisburg, a Harrisburg journalists hangout, where we had the run of the place. This included Austie Clark, John Peckham, Randy Mason, Steve Rossi, Don, Dave and his wife Mary, myself and wife Rosemary and others who escape me. I recall one night when our table was right by the men's room door. Mary, who was a cop, would put out her foot and block the door when a guy tried to open it. She would then show her badge and tell him it would cost 50¢ to get in! Another night as we were going in we heard gospel music coming from the building across the street. It was a independent black congregation and Austie Clark insisted we drop in and listen, which we did. We did and when someone approached and asked what we wanted, Austie said we'd just like to sit and listen and handed him a $100 bill. No problem!

My main reason for writing is to add a piece of history to Kit Foster's obit for Dave Brownell.As reported, he was named the first editor of OLD CARS in 1970, published by Krause Publications in Iola, Nisconsin. It was June 1970 and I had just left the editorship of ANTIQUE AUTOMOBILE. Somehow Chet Krause, owner of Krause Publications had heard that and flew into Harrisburg and arrived at my office and offered me the OLD CARS job. He then gave me airline tickets to Greenbay, Nisconsin, where he picked Rosemary and I up and drove us to Iola, dropping us at a restored farm house guest house on the publishing firm property. We toured the plant, met the people who would be part of my staff if I took the job. We toured Iola, which was little more than Krause Publicatoons, next to a beautiful lake. It was located there because Krause published other enthusiast magazines, stamp collecting among others, and Iola was about in the middle of the country, thus equalizing postage both east and west for his mailing.

MORE

2 - Ruben Verdes May 2, 2022

There was literally nothing to Iola. You even had to drive some 35 miles to a grocery store. In winter, you were just about snowbound, except you could go ice fishing on the lake. I asked Chet Krause what kind of a job Rosemary could get and there literally wasn't anything. He said she could volunteer with the Red Cross or at church.

End of story . . . I said no to the offer, having already started paperwork with the owners of THE SUN and for a $100,000 loan at the local bank to buy the paper and some much-needed offset typesetting equipment.

Chet Krause then said where was he going to find an editor that knew the old car hobby? I then told him about this young man who was editing and publishing a regional antique car publication in, I think it was Massaachusetts by the name of Dave Brownell and I gave Chet a couple copies he had sent me. Dave was already well known in our antique car club journalism circle and was just what Chet Krause needed to launch OLD CARS so he was offered and took the job.

I never knew about the AUTOMOBILE QUARTERLY job offer and thought Beverly Rae Kimes got that job? Beverly, incidently was a classmate of Rosemary and me in Penn State's journalism grad school. She saw her first antique car and sportscar at a party at our house and fell in love. She had a job in New York City with some sort of ballet magazine upon graduation. It folded soon after and she hit the help wanted ads and saw Scott Bailey's ad for some sort of position at AUTOMOBILE QUARTERLY, got it and the rest is history.

For me, we bought THE SUN effective June 1, 1970 and Classic Car Club of America came calling a little over three months later and I took on the editorship of CLASSIC CAR for the next 3½ years. I finally had to let it go due to the growth and time commitment of THE SUN. However, Austie Clark called me and said the Veteran Motor Car Club of America's BULB HORN magazine was in trouble and I took on editing and publishing it for the next three years!

Anyway, a little old car journalism for your enjoyment.

All the best,

Bill Jackson

William S. Jackson

The Annual SAH Authors' Book Signing

Hershey, Pennsylvania

The Annual SAH Authors' Book Signing took place on Tuesday afternoon, October 8th, for the second year on the AACA HQ (and Library) grounds at 800 W. Hersheypark Drive, in Hershey, right next to the grounds of the "Eastern Fall Meet." These were the authors in attendance:

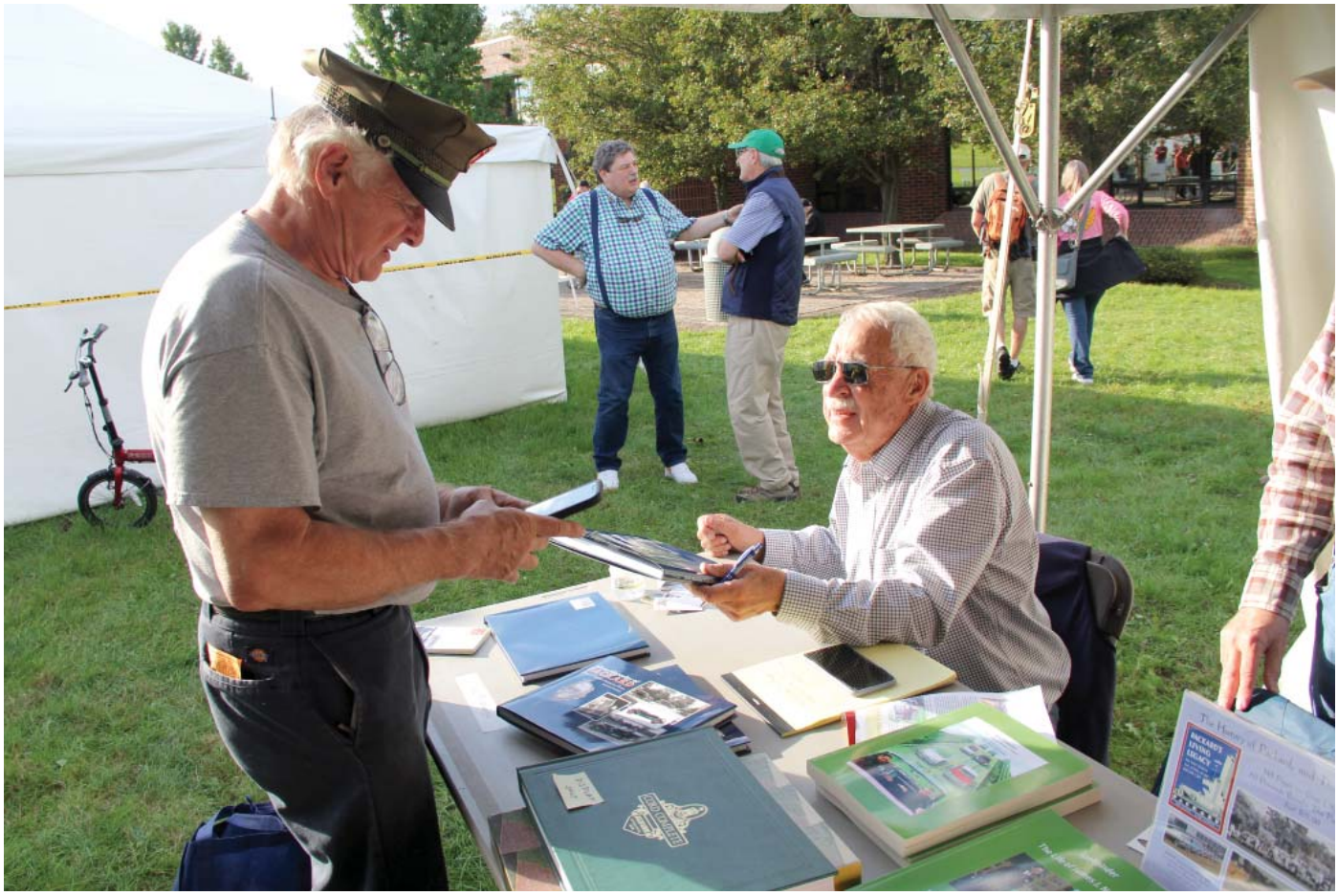
Stuart Blond
Bob Casey
Chris Cummings
Mark Dill
Chuck Flinchbaugh
Kit Foster
Dave Hermanson
Bill Huber
John Jacobus
Chris Lezotte
Gregg Merksamer
Bob Newbrough
Steve Rossi
Jim Sandoro for Jeff Mahl
Ronald Sieber
Dean Tryon
Angelo Van Bogart

Two publishers brought several titles each:
Steve Wilson of McFarland & Company
John Stone of Schiffer Publishing

The SAH is fortunate to have had the great support of the AACA Executive Director and their Library personnel, and great support from Helen V Hutchings and Robert Barr on the SAH side. However, nothing works without the support of the authors, please note their names (and seek their titles wherever books are sold). *Thank you*, and thanks to all who came and got signed copies of their books!


George Westinghouse
William R. Huber
sam's club


McLAREN
Pedal Cars
Curtiss
MOTORCYCLES
HARLEY-
Harley-Davidson WLA
ALFA ROMEO
AN ILLUSTRATED HISTORY
1910-2020
The
MERCEDES-BENZ
G-Class
Glamour Road
INSPIRING
Est.
1974
50
Years
THROUGH EXPERT KNOWLEDGE
SCHIFFER
PUBLISHING




The
Automobile and
American

An Idle Speculation

By Ralph F. Gaebler (#5253)

Editor's note: The four letters referred to in this article appear afterwards in date order, accordingly, corresponding to footnotes 8, 10, 3, and 9.

A recent investigation of the archives of the Benson Ford Research Center—part of the Henry Ford museum complex at Dearborn, Michigan—unearthed a fascinating, if brief, exchange of letters between Edsel Ford and Earl C. Howard, then Vice President of the LaFayette Motors Company of Mars Hill, Indianapolis. The correspondence took place in late 1921.

The LaFayette was a relatively new car, much like the contemporaneous Lincoln. It was about the same size, and like Lincoln, it was over-engineered and over-built. In particular, it paralleled Lincoln in using torque tube drive and a powerful V-8 engine with fork-and-blade connecting rods and 5 main bearings. The entire car was built to very fine tolerances, and many of the machine tools required to achieve this level of precision were in fact invented by LaFayette's own engineers. Mars Hill, where the LaFayette was built, was also relatively new, having been platted in 1910. Described as an "industrial suburb" of Indianapolis,[1] it was an ambitious and early example of a planned mixed-use community, encompassing housing developments, churches, libraries, schools, parks, and commercial districts, together with factories and supporting infrastructure to provide skilled jobs for those who would move there. The scale of the venture is revealed by the fact that it was intended to house 50,000 new residents at a time when Indianapolis had a population of only 233,000.[2] It thus foresaw an approximately 21% increase in the population of the city in one fell swoop. However, Mars Hill remained something of an unrealized dream throughout its history, and LaFayette Motors, despite a large initial capitalization of $6 million, was liquidated by Charles Nash in 1924 after a move to Milwaukee and the production of only 2267 units; but that is another story.

The correspondence referred to is intriguing because it is so odd. Why did Howard write a letter to Edsel Ford on November 14 describing the LaFayette and its alleged sales success?[3] On the surface, it appears that his goal was to sell Ford a car. He opens with a frank acknowledgement that he has been asked to write the letter on behalf of "Mr. Hathaway our dealer in your territory," who requested that Howard write to Ford "regarding the LaFayette." One possible interpretation of this is to assume at face value that Howard was indeed trying to sell a car on behalf of Mr. Hathaway to a prospective purchaser who might be more responsive to an inquiry by LaFayette's Vice President than to one by the local dealer; but does this make sense? Wouldn't Mr. Hathaway himself have written simply to invite Ford to take a ride in a LaFayette at his convenience? Further, why would Howard spend two pages describing the history of LaFayette Motors, its sales success (he indicates that orders are running well ahead of production), the composition and high quality of the LaFayette work force, the sterling competence and commitment of the company's leadership, and the advantages of being located in Indianapolis, "where several fine cars, and no cheap cars, are built"? None of this seems particularly relevant in making a sales pitch…for a car.

However, suppose the sales pitch wasn't for a car, but for a car company. Then all these details would be highly relevant, and the request of Mr. Hathaway could easily be seen as simply a pretext for writing to another purpose. Here we hit upon a linguistic truism: to understand what words mean it is necessary to consider the surrounding context in which they are spoken or written. In linguistic terms, one must consider the pragmatics of a linguistic exchange, not merely the bare semantics of the words used.

What do we know about the context in which this exchange of letters occurred? First, we know that LaFayette Motors was failing due in large measure to the deflation of 1920-1921.[4] Production for the first year was scheduled to reach 3000, but in fact reached only a third of that.[5] Not surprisingly, prices were cut drastically in June 1921, when the price of a 7-passenger touring car was reduced from $5625 to $4850.[6] Thus, if orders were substantially ahead of production the following November, as Howard claims in his letter, it could only be because of the nearly 15% price drop, difficulty completing cars, or both.

We also know that by the spring of 1922, and probably before, LaFayette was looking for a merger with another car manufacturer. In April 1922 the Directors of both LaFayette Motors and Pierce-Arrow announced publicly that that "Pierce-Arrow and LaFayette are to merge in the near future…"[7] Unfortunately, the merger failed to occur for unknown reasons, probably because Pierce-Arrow was in worse financial shape than LaFayette, but obviously LaFayette was looking around for some kind of financial savior.

Concerning Ford, we know that Henry Ford purchased the Lincoln Motor Company in the spring of 1922 for $8 million, after its board of directors put the company into receivership over the objections of Henry Martyn Leland. According to a well-known legend, Henry Ford seized the opportunity to purchase Lincoln at that time in order to gain revenge for Leland's having turned Ford's initial effort at starting a car company into the Cadillac Automobile Company in 1902, without Ford's further participation. Ford's tit-for-tat in 1922 then began the rancorous legal dispute between Ford and Leland that Ford, according to the legend, relished. This apocryphal story is obviously intended to illuminate alleged aspects of Henry Ford's temperament, but there are no facts known to me to support it. It is far more likely that Ford made a coldly calculated and clear-eyed decision to purchase Lincoln for purely business reasons. He was not one to go "chasing rainbows," as his friend Thomas Edison liked to say.[8] It is also possible that there were already rumors afloat in 1921 that Ford was planning to make such a move when the right opportunity arose. The automotive press, and presumably word-of-mouth, were rife with rumors of mergers and buy-outs at this time, when there were so many small, under-capitalized manufacturers struggling to make their way in a post-war economy whip-sawed by rampant inflation followed by equally severe deflation. LaFayette Motors might well have been considered a desirable target, given its large initial capitalization and similarity to the Lincoln that Ford in fact ultimately did purchase.

This is all speculation, of course, but the context does provide an explanation for Howard's letter that makes it seem far less odd.

In this scenario, it was a careful and perhaps purposely evasive effort to find out if the Fords might have any interest in purchasing LaFayette Motors, relying on Edsel Ford's willingness to read between the lines to catch the true implications of Howard's inquiry. Assuming Ford caught Howard's drift, his response to Howard on November 23 is also instructive.[9] He chose an equally allusive way to say "no," by responding to the surface-level, purely semantic content of the inquiry. He states, in reply to Howard's description of the LaFayette's fine qualities, that he has "heard many good things about [the LaFayette car]," has had "one or two short rides" in a LaFayette, and "was very much pleased with its performance." Full stop. Short letter. Message sent.

This speculation would be somewhat corroborated, at least circumstantially, if there were in Edsel Ford's correspondence at this time some similar letter from another automobile manufacturing company with ideas similar to Howard's. Such a letter would tend to suggest that rumors existed at the time that Ford was interested in possibly purchasing a high-grade car manufacturer to complement his low-priced Ford automobile. This would in turn give greater credence to the interpretation of Howard's letter this article suggests.

Unfortunately, no such correspondence exists. There is a letter dated September 26, 1921, from Henry Martyn Leland, Ford's future nemesis, inviting Edsel to a private meeting of some of Leland's friends from the Detroit Citizens League to discuss "civic problems" Leland obviously did not want to specify overtly in his letter.[10] They probably involved protecting the open shop principle from attacks by politicians who Leland believed were corrupted by their association with saloonkeepers. However, this letter does not suggest that Leland had an agenda similar to Howard's. Characteristically, the letter includes a handwritten note in the margin, added by Ford's secretary, A.J. Lepine, recording that Edsel Ford contrived to be out of town when this meeting took place, a fact she telegraphed to Leland in reply to his invitation. Edsel was ever the non-committal and discreet diplomat.

So, my speculation remains a speculation, without even circumstantial support. However, it is tempting to wander even further afield, leaping from speculation to out-and-out indulgence in a historical counter-factual. Suppose Ford had decided to purchase LaFayette Motors in late 1921. Since the company was very similar to Lincoln Motor Company, such a purchase would have offered Edsel a very similar platform to develop the kind of automobile that interested him. Would LaFayette then have become a famous marque and Lincoln an obscure footnote to Leland's otherwise brilliant career? Automotive history is full of such interesting, if idle, questions.

(Endnotes)

1 *Indianapolis Star,* 13 March, 1912, p.14.

2 Mars Hill, Greater Indianapolis Industrial Association, 1910. This was a brochure published to entice enough investors to leverage construction of the necessary infrastructure in Mars Hill. The population of Indianapolis was taken from the 1910 census.

3 Letter of Earl C. Howard to Edsel B. Ford, November 14, 1921, Edsel B. Ford Research Papers, Edsel B. Ford Correspondence Series, Accession 6, Benson Ford Research center.

4 See Anthony Patrick O'Brien, "Depression of 1920-1921, in David Glasner and Thomas F. Cooley (ed.), *Business Cycles and Depressions: An Encyclopedia*. New York: Garland Publishing (1997), pp.151-153.

5 *Indiana Daily Times,* 20 February 1920, p.4.

6 *Indianapolis Star,* 1 June 1921, p.2.

7 *Indianapolis Daily Times,* 14 April 1922, p.22.

8 Letter from H.S. Firestone to Henry Ford (initialed by Edsel Ford), March 3, 1921, Edsel Ford Research Papers, Edsel B. Ford Correspondence Series, Accession 6.

9 Letter of Edsel B. Ford to Earl C. Howard, November 23, 1921, Edsel B. Ford Research Papers, Edsel B. Ford Correspondence Series, Accession 6.

10 Letter from Henry M. Leland to Edsel B. Ford, September 26, 1921, Edsel B. Ford Research Papers, Edsel B. Ford Correspondence Series, Accession 6.

1921 LaFayette advertisement.

(C O P Y)

FIRESTONE TIRE AND RUBBER
COMPANY

Akron, Ohio

March 3rd, 1921

Mr Henry Ford
Dearborn Michigan

Dear Mr Ford:

Mr Liebold sent me a copy of Mr Edison's telegram. He has a keen comprehension of the psychology of things. For the fact is, since I received your fine order for March shipments my mind has quit wandering or, "chasing rainbows" as Mr Edison says, and I have settle down in the factory and believe I am doing good work, at least, I hope so.

I find it difficult to get many men to realize that they must do things better and more efficient than they have in the past few years. When you tell them about it many begin to feel that they are abused. When that attitude is taken I let them go. Just yesterday I let my Superintendent go. I know that I haven't the nerve that you have but I have reached the point where there is no man around our place, no matter how big, that we cannot get along without if he does not get into line with our policy.

Business is picking up very nicely and I am sure you cannot fully appreciate what a help and inspiration you gave us when you instructed your factory to give us such a volume of business. It put new life into our entire organization, to say nothing of the necessary financial help it will give us.

Yours very truly,

(Signed) H S Firestone

HSF/K

LINCOLN MOTOR COMPANY
DETROIT, MICHIGAN

HENRY M. LELAND, PRESIDENT
WILFRED C. LELAND, VICE-PRES. & GEN. MGR.
WILLIAM T. NASH, SECY. & TREAS.

September 26, 1921

Telephoned Mr. Ford out from Wed. 9/27/21

Mr. Edsel Ford,
Ford Motor Company,
Detroit.

My dear Mr. Ford:

You and I hold in common a sincere loyalty to the best interests of our city, but also a deep concern over many of our present civic problems.

Through the Detroit Citizens League we have been able to keep quite fully informed of developments and facts which are not generally known, but which may have a vital bearing upon government, industry and the whole life of our people in the near future.

With this in mind, I am inviting a small number of friends to meet informally Wednesday, September 28, for dinner at the Detroit Athletic Club, at 6:30 o'clock, and would appreciate your presence as one of the number. There we may discuss intimately the subject in mind and perhaps reach some decisions of a helpful nature.

Awaiting your early reply, and hoping it may be favorable, I remain

Sincerely yours,

Henry M Leland

HML.LA.

LAFAYETTE MOTORS COMPANY
Mars Hill
INDIANAPOLIS

November 14, 1921.

Mr. Edsel B. Ford,
2171 Iroquois Ave.,
Detroit, Mich.

Dear Mr. Ford:

Mr. Hathaway, our dealerin your territory, has asked me to write to you regarding the LaFayette. I welcome the opportunity to do so and I hope it may not be considered an intrusion.

The LaFayette car was conceived more than two years ago as an automobile which would most completely satisfy the requirements of theman who has driven many other fine makes of cars but has hitherto failed to find in any of them the sum total of qualities which he considers essential to complete motoring satisfaction.

We bought a plant at Mars Hill, an industrial suburb of Indianapolis, and after a year of experimental and development work, delivered our first production car in August, 1920. Since that time we have built nearly 1,000 cars and more than 800 of them are now in the hands of owners. Some have been driven 25,000 miles and many of them 10,000 miles.

Our business has shown a steady increase and orders have run approximately 100 ahead of production since last May.

The president of our company is Charles W. Nash, who is also president of The Nash Motors Company; and James J. Storrow, head of Lee, Higginson & Company, one of the foremost banking houses in the country, is chairman of our board of directors.

LAFAYETTE MOTORS COMPANY

We have no absentee landlords nor any overhead beyond our specific production requirements. The men most responsible for our success have their offices in the same building where the cars are produced. Our factory is neither large nor ornamental but modern, and extremely practical.

Located in a city where several fine cars, and no cheap cars, are built we have been able to attract a type of mechanic whom it has not been difficult to educate in Lafayette methods. Our labor is almost 100 per cent American born.

Our shop methods are very precise and one who is familiar with the detailed construction of a motor car can find in our factory many things that are worthy of comment, but we have no secrets except thoroughness, accuracy and eternal vigilance.

The best way to judge our car is to ride in it, drive it, and talk with those who own it. Knowing that you have less opportunity to judge our factory organization, I have taken the liberty to present to you such information as I should be glad to have regarding any product which I might consider purchasing.

Very truly yours,

Howard

Vice-president.

E. C. Howard
E. W.

Nov 23
1921

Mr E C Howard, V Pres
Lafayette Motors Co
Indianapolis, Ind

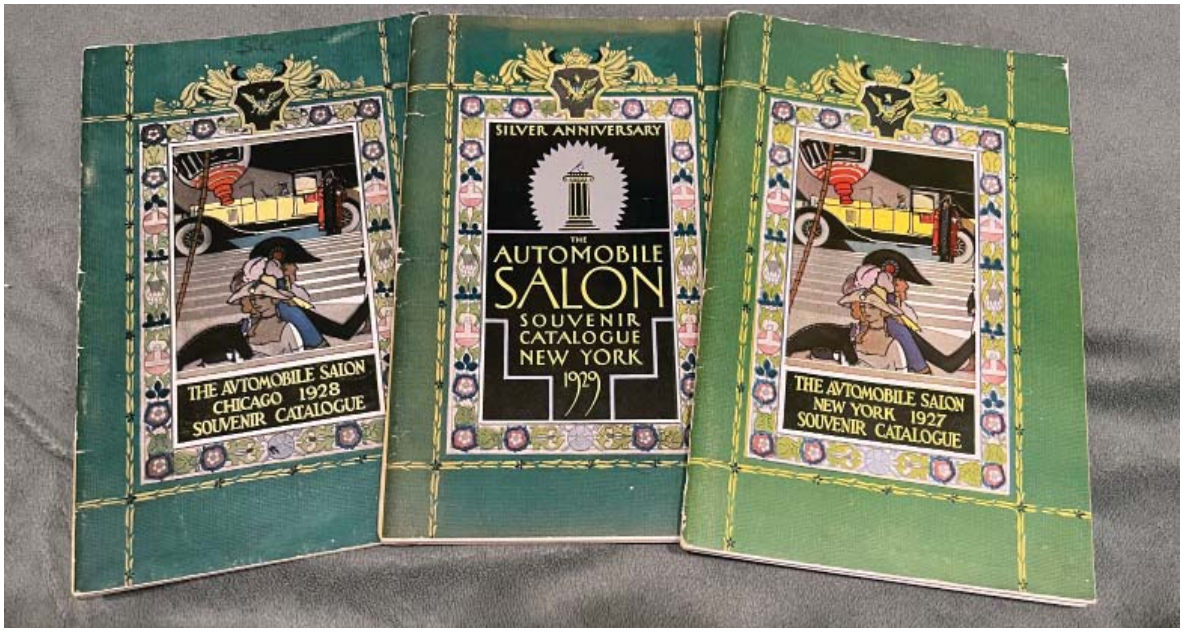
Dear Mr Howard:

I am very glad to receive your letter of Nov 14th outlining your position in the motor car industry.

I am entirely familiar with the standing of the Lafayette car, and have heard very many good things about it. I have had one or two short rides in one of the cars and was very much pleased with its performance.

Yours very truly

EBF-L



Research: Motor Show and Salon Souvenir Programs

By Walt Gosden

Accurate information and details about vehicles and events that took place 80+ years ago can be sourced from publications that reported on the subjects at the time they took place. The Motor Show programs for the annual car shows that took place in London, Paris, Berlin and Brussels are an incredible resource of information. They all resemble each other in size, format and content and to a great extent even appear the same. They are 5¾ x 9½ inches, approximately ¾-inches thick and vary page-wise, but can be well over four hundred pages depending upon the number of advertisers and vehicles present at the shows. The London programs by the mid to late 1920s that took place in Olympia and Earl's Court exhibit halls were printed by Stanhope Press Ltd., Kent, and Alabaster Passmore & Sons Ltd. of Maidstone.

There were numerous sections to the programs covering lists of private cars, carriage works, service & garage, motor boat (marine), tires, trailers, press/associations/travel and an accessory and component section. There was a map/gallery-plan bound in each edition that had the floor plan layout where the exhibit stands were located.

The floor plans now show us who was next to whom, as everyone was looking at the latest style and designs of their competition. The description of the cars on display by manufacturers and coachbuilders was very detailed as to make, model, body style, colors mechanical capacity, length, price, gas capacity (!) etc.

These programs also list who was the selling agent and/or dealership of the cars on display. Equally detailed descriptions of accessories etc. are also listed (lamps-size, etc.) with the fine-print giving as much information as possible.

The programs list cars from all countries that were for sale, not just those of the particular country the motor show happened to take place in. Each program is an encyclopedia (literally) of what was going on and available.

The souvenir programs issued at the annual custom body salons held in New York, Chicago, San Francisco, and Los Angeles were all managed by the same company located in New York City. All the programs were produced and printed by the same company. under John J. Eustis.

The cars at these salons are listed under what coachbuilder had their creation on a particular chassis. It was not unusual to be able to see the same car be exhibited at a number of the salons. One show would be finished and the car transported by train in a box car to the next salon location. I know of one Derham bodied car exhibited in New York (and sold there) that, by permission of the purchaser, was exhibited in the next salon in Chicago before the car was returned east to be delivered. Although the salon programs do not list chassis numbers, the bodies were so costly it was not the routine to make the same body for each show to be exhibited at that coach-maker's space.

Unlike the European motor shows where the general public could attend if they paid an entrance fee, the custom body salons in the USA were by invitation only! Usually, the chauffeurs would attend the custom body salons during the day and at night the perspective customers would attend an elaborate social affair to view the cars in the evening.

Huge quantities of the programs mentioned here were not printed (especially for the American salons) so the survival rate is fair at best. There are examples held in automotive-based library collections, and not a full run of all locations. The library of Henry Austin Clark, Jr., had some and that collection is now at The Henry Ford. The Collier collection in Florida (REVS) has the library of Peter B. Richley of Ashford, Kent, England. I had the privilege of seeing both collections mentioned numerous times before they arrived at their current locations as both Austin Clark and Peter Richley were close friends—fellow squirrels.

I hope this may give you some idea as to where to look further for the information you seek. Happy Hunting!


INTERNATIONALE AUTOMOBIL-
UND MOTORRAD-AUSSTELLUNG
BERLIN 1939
CATALOGUE OFFICIEL DU XXVIe SALON DE
GRAND PALAIS CHAMPS ELYSEES
L'AUTOMOBILE
DU CYCLE ET DES SPORTS
1932
PRIX 5F
PATRON, H.M. The King
TWENTY-NINTH INTERNATIONAL
MOTOR EXHIBITION
CARS & BOATS
OCT. 17-26
1935
OLYMPIA
CATALOGUE ONE SHILLING
AMORTISSEUR
Ch. Lacroix
36, RUE DE LA SOURCE
BRUXELLES. TÉL. 37.87.18
LA MAISON N'A PAS DE SUCCURSALE
VOIR AU DOS
CINQUANTENAIRE
97e SALON
AUTOMOBILE
ET DU CYCLE
DU 24 NOV. AU 3 DEC. 1934
CATALOGUE
OFFICIEL
5 FS

Noyes Buick in downtown Boston in 1933. The jam of cars on Commonwealth Avenue was caused by the introduction of the Wizard Control Buick. Wizard Control was a vacuum operated system permitting gear changes without depressing the clutch pedal.

Noyes Buick in downtown Boston in 1933. The jam of cars on Commonwealth Avenue was caused by the introduction of the Wizard Control Buick.

Noyes Buick and the Early Distributors Network
(An Epilogue to "Men of Means" in the Prior *SAH Journal* No. 326-7)

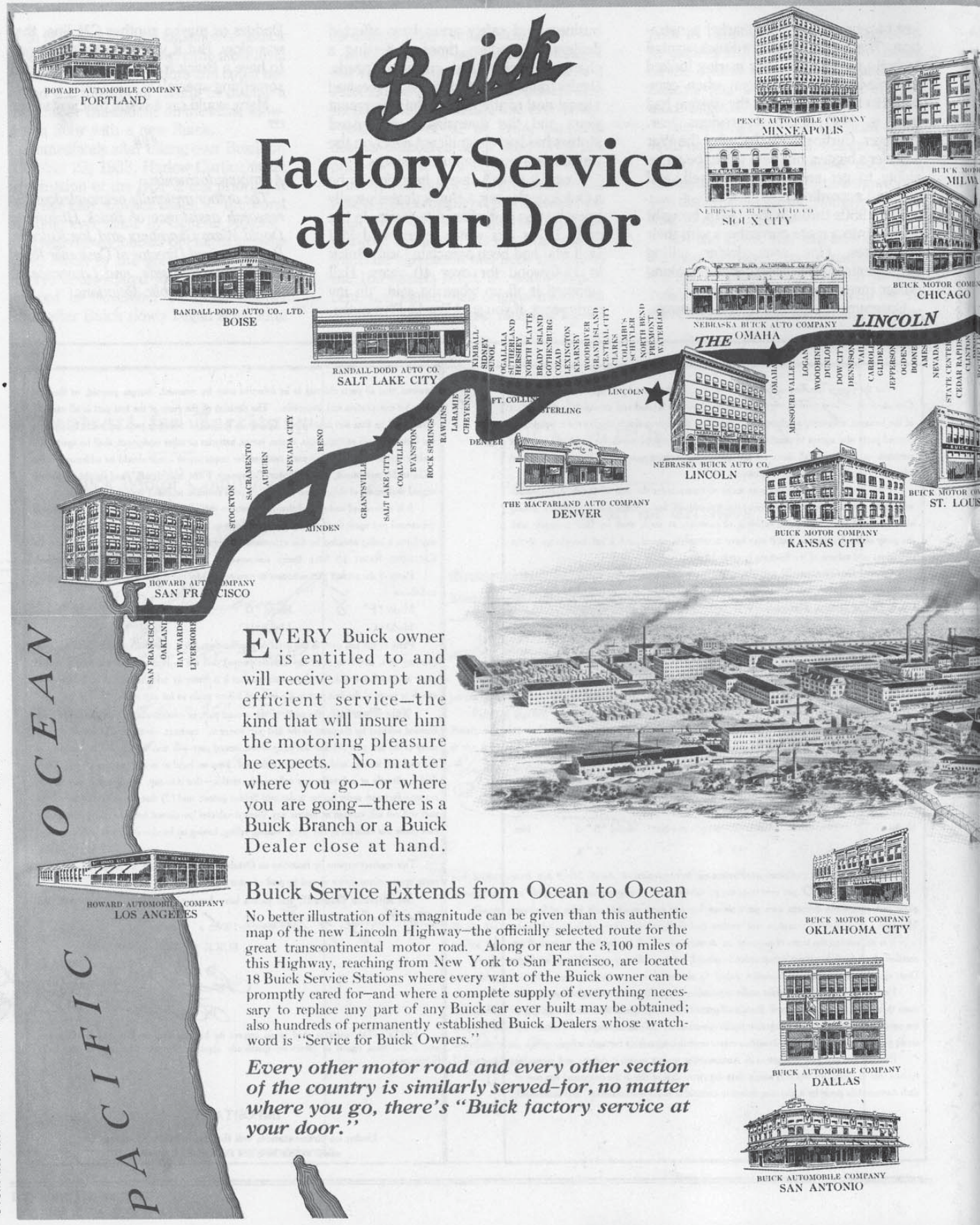
By Helen V Hutchings

Preface: This is an adaptation of an article I wrote and was published 32 years ago! Updating it for these pages was prompted by that wonderful 1933 booklet from Noyes Buick that was shared electronically accompanying the previous SAH Journal *no. 326-7. —hvh*

The Buick: A Complete History relates Billy Durant "selected and appointed in 1905 . . . thirteen distributors . . . men who would have sufficient business ability, capital and mechanical awareness to set up and run their own automobile businesses . . . [and] would then assist others in their territory to set up their own agencies." One of those was Noyes Buick's Harry Knight Noyes who had already established his Buick dealership and was selling cars to Bostonians and surrounding area residents. Thus, the April 2008 closing of what had become the Hodgdon-Noyes General Motors dealership truly did mark the end of an era of having served the Boston area for over a century—104 years to be precise.

In addition to Noyes, other Buick distributors included Charles S. Howard with dealerships located in both San Francisco and Los

BUICK CARS ARE BACKED BY AN ORGANIZA



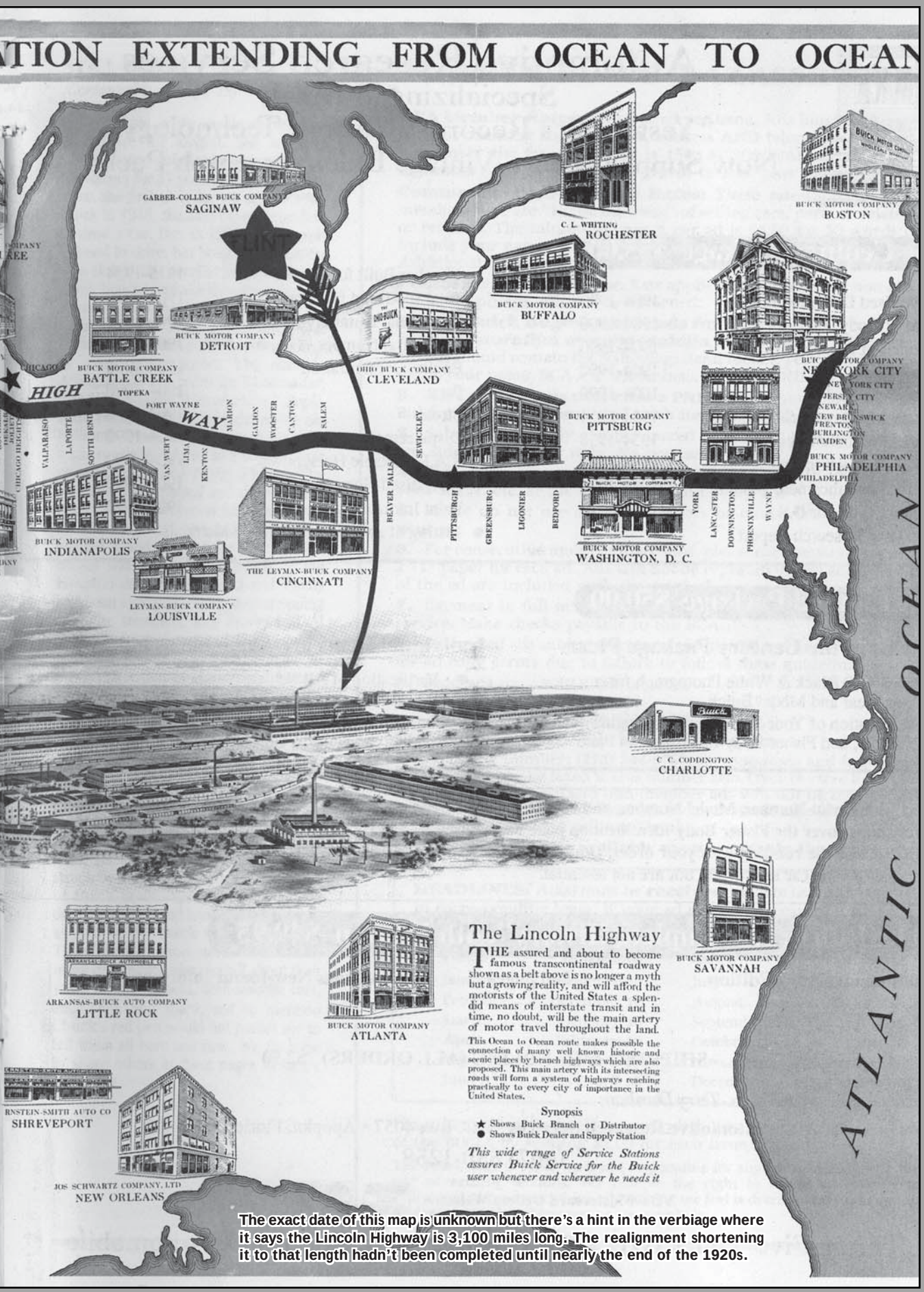
EVERY Buick owner is entitled to and will receive prompt and efficient service—the kind that will insure him the motoring pleasure he expects. No matter where you go—or where you are going—there is a Buick Branch or a Buick Dealer close at hand.

Buick Service Extends from Ocean to Ocean

No better illustration of its magnitude can be given than this authentic map of the new Lincoln Highway—the officially selected route for the great transcontinental motor road. Along or near the 3,100 miles of this Highway, reaching from New York to San Francisco, are located 18 Buick Service Stations where every want of the Buick owner can be promptly cared for—and where a complete supply of everything necessary to replace any part of any Buick car ever built may be obtained; also hundreds of permanently established Buick Dealers whose watchword is "Service for Buick Owners."

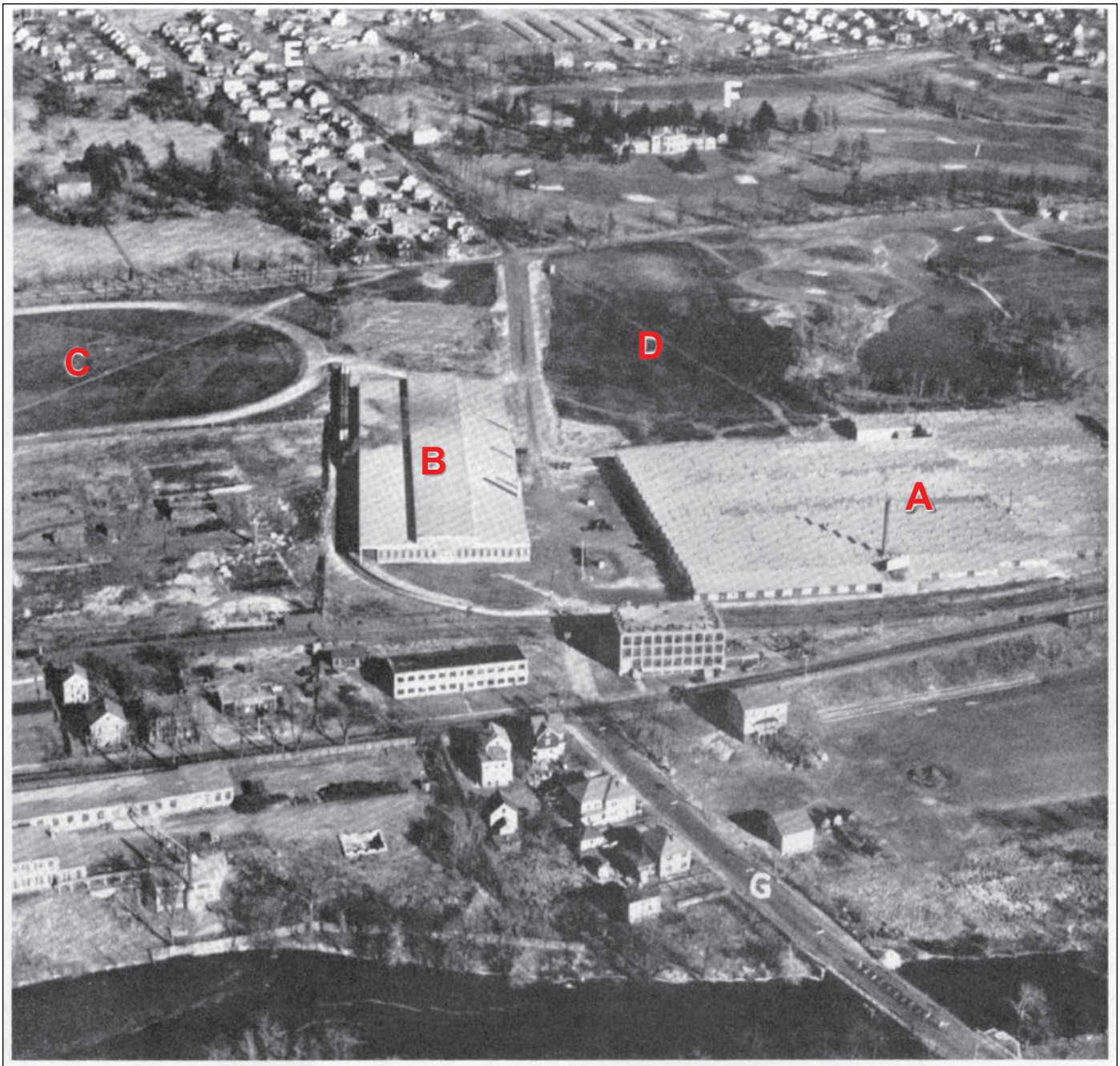
Every other motor road and every other section of the country is similarly served–for, no matter where you go, there's "Buick factory service at your door."

From the literature collection of Jack Jones, BCA #3731, Indianapolis, IN



The exact date of this map is unknown but there's a hint in the verbiage where it says the Lincoln Highway is 3,100 miles long. The realignment shortening it to that length hadn't been completed until nearly the end of the 1920s.

Editor's note: The story and booklet mentioned in the preface of this article were titled Time Drives On*—a program for the "Noyes-Buick Annual Travel Exposition" of 1933. The QR code shown above next to the image of the booklet cover will link the reader to a PDF of the entire booklet (and you can download it if you wish).*



Reprinted here from a 1933 brochure, this aerial view shows the H. K. Noyes bonded warehouse located on the Watertown-Waltham rail line outside Boston. Sitting on eight acres next to the Waltham Country Club (F) and including covered warehouses (A, B), a test track (C), and an outdoor parking area (D), the facility could accommodate the 36 rail cars full of Buicks which arrived each day as well as store 3,500 vehicles under roof.

Angeles. He would one day own and care for the famous racehorse Seabiscuit. Still on the Pacific Coast but further north in Seattle, A.S. Eldridge became a distributor. Another was George G. G. Peckham, known and called by many 3G. He had begun in the car biz in Dayton but when it flooded out he relocated to Cleveland before being designated a Buick distributor. Another was Guy S. Garber. The Saginaw, Michigan, business he established is still in operation today as the Garber Automotive Group.

Another distributorship was located in St Louis. Its owner, Fred W.A. Vesper, would also head NADA during the Depression years and was instrumental in its headquarters subsequently being relocated to Detroit. Cincinnati was home to another distributor, Harry S. Leyman, and in Minneapolis the appointed distributor was another Harry: Harry E. Pence. Today the building in downtown Minneapolis from which Pence distributed Buicks to other area dealers that he had established is on the National Register of Historic Places.

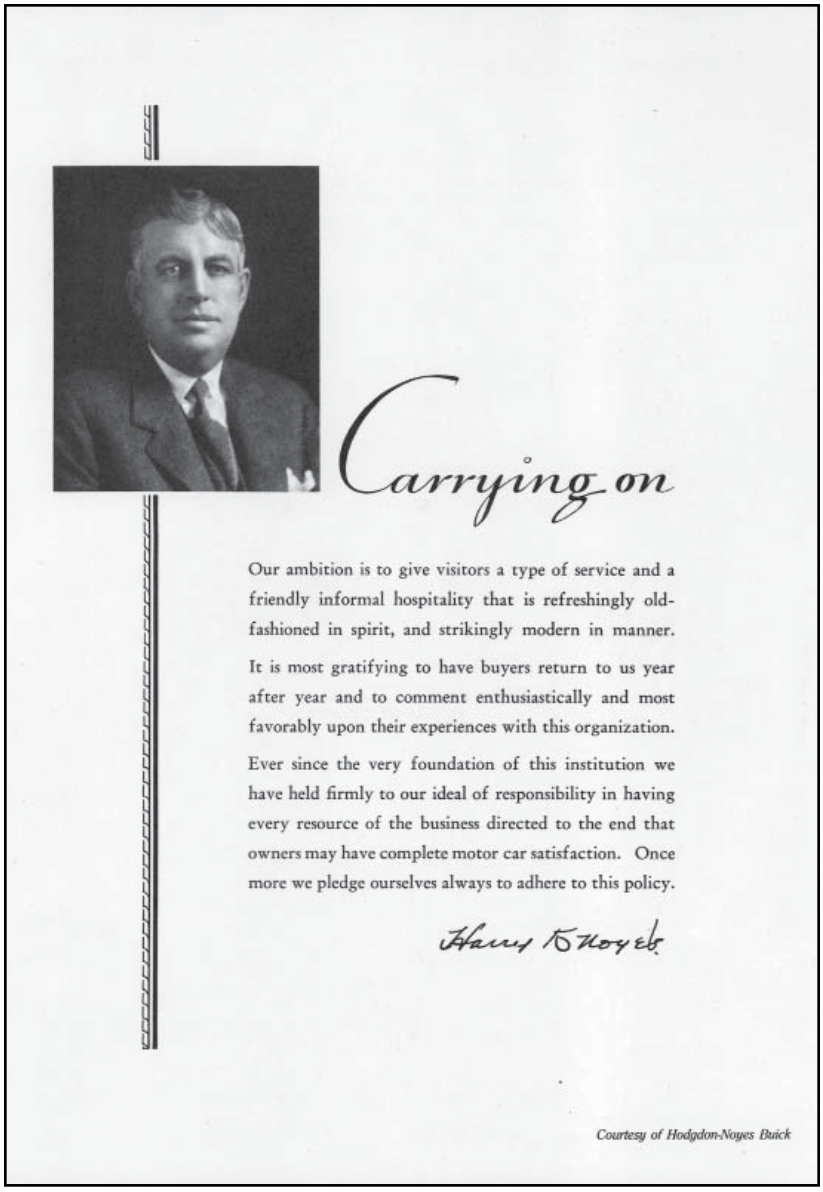
Salt Lake City's A. G. Randall in business as Randall-Dodd Automobile Company became a distributor while in Denver Finlay L. MacFarland's MacFarland Automobile Company added Buick distributorship to his business. In Lincoln, Nebraska, Billy

Durant named yet another Harry, H. E. Sidles, and his Nebraska Buick business a distributor and in Rochester, New York, it was Chauncey "Chan" L. Whiting. Lastly, in Charlotte, North Carolina, Charles Campbell Coddington was granted exclusive rights to distribute Buicks throughout the Carolinas.

Each distributor sold Buicks to individual customers, but its bigger job and responsibility was to find, appoint and train other dealers in its territory. Each used their own monies to finance these enterprises. In essence each was "Buick" to those dealers. The distributor system was very effective permitting Buick to expand its dealer network in just a few years rather than the decades it otherwise would have taken to accomplish.

The organization that Harry Noyes put in place to receive, service, distribute and market Buicks was nothing short of awesome. Within his area of distributorship, he created 75 individual dealerships or agencies. Of that total, all but four were wholly or partially owned by Noyes. Including the staff of the various dealers and support people who worked directly for the distributorship operation, Noyes employed 9,000 people. Twenty-two branches were established as well as 75 authorized service centers scattered around the New England area.

The Noyes operation also included 21 affiliated support companies. One of them, H.K., Inc., owned and operated a bonded warehouse capable of providing indoor storage for 3,500 new Buicks. As can be seen in the aerial photo, on the eight-acre site located on the Watertown-Waltham rail line outside of Boston, there was also a test track (**C**) and an outdoor parking area (**D**). Visible just beyond that parking area is the Waltham Country Club (F). The warehouses (**A** and **B**) have a rail spur along one side where the 36 rail cars loaded with new Buicks that arrived daily could be offloaded.




Buick's distributors were central to the company's success. Top row from left: C. C. Coddington, C. L. Whiting, H. E. Sidles, A. S. Eldrige , Guy Garber. Middle row from left: H. S. Leyman, H. K. Noyes, G. G. G. Peckham, F. L. MacFarland, F. W. A. Vesper. Foreground: H. E. Pence.

Another of the Noyes subsidiaries was a financial operation, enabling Noyes to self-finance his customers' purchases. If this reads like an early GMAC, you're correct. When General Motors started its financial arm, it had purchased the Noyes financing company.

Boston usually throws a grand party in observance of George Washington's birthday. During the 1930s, Noyes Buick's way of celebrating was a mini-World's Fair complete with honored guests. Vehicles were put on display and there were many special displays. Each year Noyes produced a themed booklet. It is for this event in 1933 that the booklet that was shared digitally with the last issue of this publication was produced, The booklet had been compiled by Noyes' Retail Sales Manager C. S. Henshaw.

By the beginning of the 1940s, Buick was restructuring and communicating directly with all of its dealers. Thus, the distributorship agreements were cancelled. In all, something on the order of 4,200 contracts with retail Buick stores were sold to Buick or General Motors as the various distributorship agreements were dissolved. Internal paperwork at Noyes estimated that during the years it operated as a distributor, it had paid in excess of $200 million into General Motors coffers.

A 1911 Elmore Model 25 for sale during "Hershey" (i.e., the AACA Eastern Regional Fall Meet).

Elmore Manufacturing Company of Clyde, Ohio (1900 to 1912)

By Louis F. Fourie

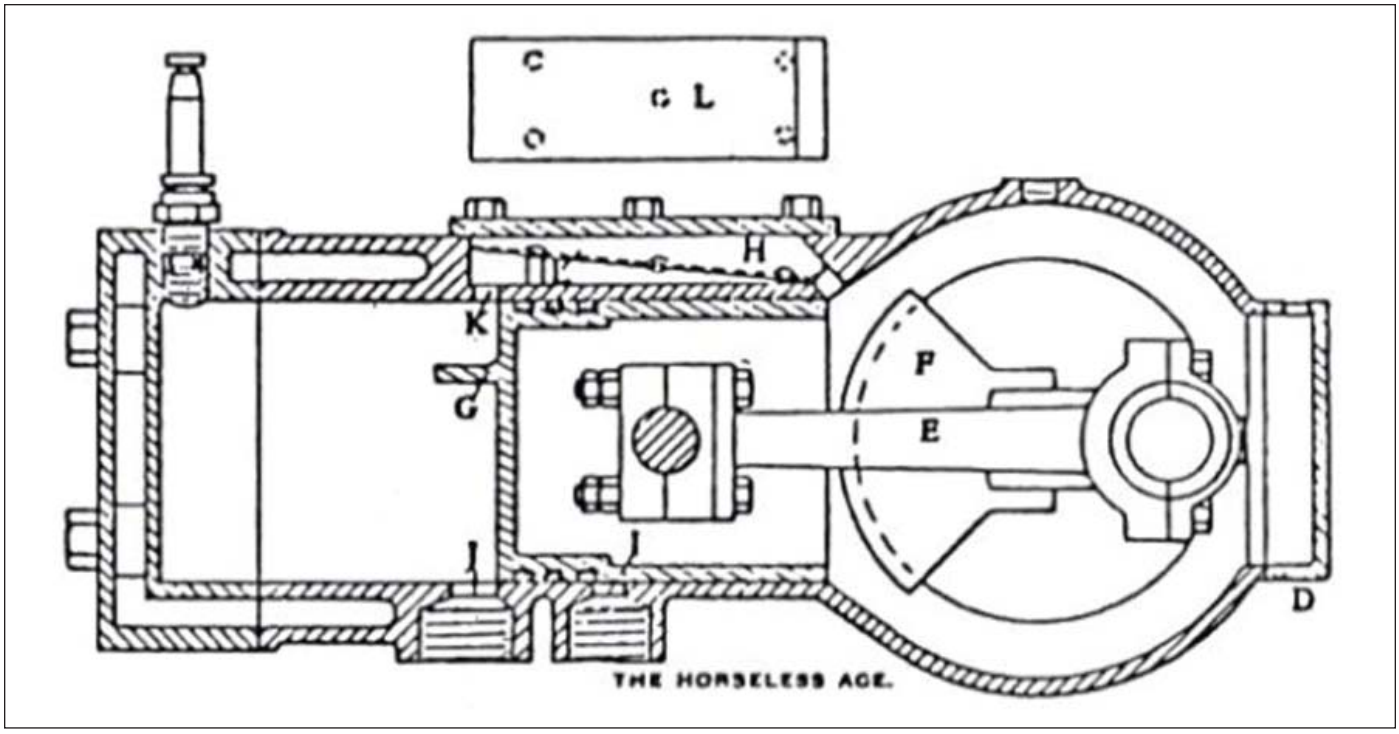
At the beginning of the twentieth century, it was not fully evident that the internal combustion engine would emerge as the dominant powerplant in the future. Electric and steam powered engines offered a convenient if limited range in the former, while the latter took a long time to build up a head of steam, but was very effective once all "powered-up." As for the combustion engine, the number of strokes to achieve an explosion remained up for debate. The Becker brothers felt only two-strokes were needed in their Elmore automobile.

After settling in Elmore, Ohio, in 1869, Harmon Von Vecton Becker started a sawmill. Together with his two sons, James and Burton, he began production of Elmore bicycles in 1892. Named the Elmore Bicycle Co., the operation continued through to 1897 by which time they had moved to Amanda Street in nearby Clyde, Ohio. Their cycle business was prosperous but not wanting to merge their company into a trust named the American Bicycle Company, they went into the car business and formally named their organization the Elmore Manufacturing Company in 1900.

The Becker brothers began prototyping a two-cycle or two-stroke engine in 1898, succeeding with an operational unit early in 1900 after announcing late in 1899 their intention to manufacture automobiles.[1] Their first production model had a two cylinder vertical engine mounted under the seat, with a two-speed pulley transmission arrangement and tiller steering. It would appear that an unsprung flexible chassis linked the two axles and supported the engine. The body and a wicker-like seat were sprung above the chassis via transverse full-elliptic springs. The pulley transmission arrangement took the drive directly to the rear tires, rather than turning an axle shaft.

Elmore boasted, "We have no gears, cams, clutches, sprockets, chains, valves or other kindred trouble makers, but still have a perfect running carriage."[2] E. W. Roberts, Elmore's chief engineer, challenged *Horseless Age* on at least two occasions because its editorials did not stress the benefits and simplicity of the two-stroke over its four-stroke competition.[3] Roberts joined Elmore early in 1902 having been editor of *The Gas Engine*.

Two-strokes were not new, having been in pleasure boats for several years and featured in Lenoir and Brayton motors. Elmore perfected the idea, providing a greater rev range needed for automobile applications. Whereas a four-stroke engine had an "inhale" stroke to suck in the combustible mixture, a two-stroke used the crankcase below the pistons to force-feed the combustion chamber. The up-stroke of the piston created a vacuum in the crankcase, drawing in the mixture as the piston reached its top, exposing a port



The 1904 Model 9 single-cylinder engine, mounted transversely on the left side and horizontally.

from the carburetor. This port was shut off with commencement of the down stroke of the piston, building pressure in the crank chamber. As the piston reached the bottom of its travel, a port between the crank case chamber and the combustion chamber allowed the pressurized mixture in, with sufficient force to push out or displace the burnt gasses from the previous explosion. The exhaust port was exposed sooner than the inlet and in turn remained open later. The rotation of the crankshaft also assisted in the mixture delivery.

Elmore referred to its engine as the "crankcase compression" or "three port type." These three ports consisted of the intake port, namely the crankcase, the bypass port, which was the passage between the crankcase and the combustion chamber, and finally the exhaust port to clear the burnt gasses. A deflector plate cast in the top of the piston had the duty of reducing the dilution of the unburnt intake mixture by the spent burnt gasses. No mention was made of mixing oil and fuel for the two-stroke engines. Contemporary articles in 1901 indicated that splash lubrication oiled the cylinders and crank bearings. Later reports spoke of lubricating the crank bearings with heavy grease and a cup-and-oiler arrangement.

Elmore started with a vertical twin-cylinder engine from 1900 to 1901 with an output of 7 hp priced at $750. The *Standard Catalog of American Cars, 1805 – 1942* identifies this engine as a single cylinder but at least two period publications refer to a twin-cylinder unit.[4] The contact igniter was operated by the piston and fed by a dynamo which ran in parallel with a battery. Steering was through a lever off a central steering post. What is less clear is the operation of the two-speed planetary transmission via this steering post, which was explained as follows. "The speed is controlled by a single lever pivoted concentric with the steering post. Moving this lever to the left gives the reverse motion, and moving it to the right gives first the slow and a little further on the high speed."[5]

A more expensive $1200-1500 6-hp model was introduced for 1901, surprisingly with only a single cylinder engine, but was discontinued by April 1902. The Model 6 of 1902 continued the practice of the first Elmore with an under-seat double-cylinder vertical engine but with two flywheels. A third gear was added to the planetary transmission but continued with the chain drive and wire wheels. Full-elliptic springs were used front and back as before. At the rear, these longitudinal springs were not attached to the axle, but to a transverse semi-elliptic leaf above the axle, about half a foot in from the axle and transverse spring ends. Steering control continued via a tiller.

For 1903 and 1904 Elmore offered a two-seater runabout Model 7, and a 4-seater Model 8 tourer or tonneau. Each had a vertical twin-cylinder engine, with the Model 7's below the seat and the Model 8's more powerful engine up front under a hood. Make-and-break ignition and a float-feed carburetor were introduced. In each case the chassis was updated with half-elliptic leaf springs, wood wheels and a steering wheel. An additional deluxe Model 8 tourer in 1904 included a steering column that moved forward to ease entry and exit.

The 1904 Model 9 took the unusual step of reverting to a single-cylinder engine, mounted transversely on the left side and horizontally. Constricting the volume of the crankcase enhanced the crankcase compression. The suction and compression created beneath the piston had a greater impact in the smaller crankcase. Unusual for the time was a single casting for the crankcase and cylinder, with a separate head and crank chamber cover. George Holloway, the chief engineer, solved the problem of pre-ignition which caused blow back into the crankcase. He installed a gauze firewall in the bypass chamber, but was most creative in diagonally installing this gauze within the throat to provide a much greater surface area for the mesh than the cross section of the bypass port. For this ingenious idea he received patent no. 825,835. The engine remained under the seat but a fake hood was added for this 1904 model. The planetary transmission returned to a two-speed unit.

The 1905 Model 10 appears to have been much like the 9 except for a formal radiator and hood, even though the engine remained beneath the seat. The Model 11 Pathfinder returned to twin-cylinders, still under the seat. The engine was horizontal and room was found between the chassis rails to transversely mount the entire drive train. Also included were twin carburetors.

The engines moved forward under the hood for all 1906 models, initially using vertical two or four-cylinders. Traditional radiator shells replaced earlier finned tubing. The two-cylinder Model 14 now lubricated by a Hill precision oiler retained the two-speed planetary transmission but replaced the chain drive with a cardan shaft. For an undisclosed reason, the twin-cylinder engine was short lived and was replaced by a new three-cylinder version of the four, with three-speed sliding gear transmission while continuing the Model 14 designation. Cylinders were cast individually.

The three-cylinder models became some of the most popular Elmores and had few changes for their four-year run which ended in 1909. The longer wheelbases enabled a side-entrance tonneau. For 1907 the tourer was designated Model 16, with the runabout Model 17, both riding on a 104-inch chassis used by the 4-cylinder of the previous year. The clutch expanded within the flywheel. The wheelbase expanded to 110-inches for 1907, creating the Model 18, which introduced a three-quarter-platform rear suspension, using a transverse leaf to support the rear of the longitudinal semi-elliptic springs. The same 4-cylinder engine continued through to 1910.

The self-starting ability of the 4-cylinder Elmore "on the spark" was described as follows: "A valuable feature of this car is the self-starting power of the motor. With four two-stroke cycle cylinders, two of the cylinders are always active, and the motor gives, therefore, an exceptionally even torque. Besides, when the car is stopped one or two of the cylinders always contain an explosive charge, which can be fired when it is desired to start again by simply closing the switch."[6]

The evolution into three and four-cylinder engines resulted in large cars very different from the humble Elmore origins. Even though sales for 1906 were only 209 cars, the more opulent models brought optimism that prompted the construction of three new factory buildings. This expansion allowed the production of 467 cars in 1907 and 648 in 1908.

Considering that Elmore trumpeted the simplicity of their two-stroke engines in its earlier days, the arrival of the so-called "High Duty" engine indicated a complete turn around. Their 1910 Model 46 featured some of the most innovative but complex engineering ever applied to a two-stroke. Chief engineer George Holloway and his assistant, Louis Krebs, decided to create greater pressure to feed the combustion chamber. Although the term supercharger was not correct for the Elmore design, the German equivalent "Kompressor" certainly was relevant in describing how the combustion mixture was compressed to aid its flow into the cylinder.

Each piston and cylinder had two bore diameters, the upper portion of the combustion chamber being narrower, while the lower sections had a wider diameter to act as the compressor. Effectively, the double-decker piston looked like a formal top hat, with rings on top and round the outer rim at the bottom. The compressor chamber consisted of the collar made up of the difference between the inner narrow diameter of the piston and the outer wider cylinder.

Using a compound compression design eliminated the need to route the fuel-charge through the crankcase, which usually contaminated the fuel by the necessary lubricating oils. However, the mixture did have a long travel from the carburetor to the combustion chamber. The flow began in the compression perimeter chamber and was then routed through a rotary sleeve valve for distribution to an alternate cylinder that was at the bottom of its stroke. While there were no valves in the combustion chamber, the rotating cylindrical sleeve valve was needed for the distribution of the compressed charge, which it allocated to the appropriate cylinder, and was also required to shut off the individual compression chambers.

The High Duty engine was limited to the Model 46 for 1910 but expanded to include all variations for 1911 and 1912. These models also dropped the platform suspension for the more common three-quarter springing although there were references to a full-elliptic rear suspension for the 1912 Model 26.[7]

There were three different sized models in 1911, both in engine capacity and wheelbase starting with the Model 25 on up through the Model 36B and the 127.5-inch wheelbase Model 46B. Multiple disc clutches were used in 1911 but reverted back to internally expanding-band clutch for 1912.

For their final year, Elmore had two wheelbase lengths each with its own engine size. The smaller two were Models 26 and 27, and the larger pair Models 37 and 38. Changes for 1912 included Schebler carburetors used in place of an Elmore design and two separate ignition systems, one from Atwater Kent and the other from KW magneto, each system with its own set of spark plugs.

The Elmore Manufacturing Company was a partnership within the Becker family for most of its life and was only incorporated on October 28, 1908 in preparation for its sale to GM. There is a lack of consensus as to who sold Elmore to GM. The sellers range from the Beckers as well as Durant himself, who is reputed to have bought the company for $550,000 and sold it to GM for $600,000.[8] Arthur Pound, the author of a GM history to 1934, identifies Arnold H. Goss who had earlier offered to sell GM the E. R. Thomas Company, then renowned for its Thomas Flyer, which won the 1908 New York to Paris race.[9] This sale did not ever materialize but supposedly E. R. Thomas had purchased Elmore in 1907 and Goss re-sold the Clyde Company to GM in 1909 for $600,000. Goss had earlier been the secretary of Buick and would later return to GM. An announcement from Toledo, Ohio, identified November 22, 1909 as the date GM absorbed Elmore.[10]

The speculation that Durant wished to acquire the patent to the two-stroke compression engine was without merit. Dugald Clerk was recognized as having ports in a cylinder that were exposed by the piston for intake and exhaust in 1880. The idea of compressing the crankcase was attributed to Clark Sintz of Springfield, Ohio, in 1892, resulting in US patent no. 509,255. Burton Becker was aware of Sintz and his design, but supposedly did not know of US patent no. 544,210 assigned to an Englishman, James Cook. This patent became the property of Joseph Day who visited Becker in December 1905. Even though the Cook patent was issued after that of Sintz, the Sintz creation used a four-port approach. As such the Elmore engine conformed to the Cook-Day patent. It is curious why Day waited until late 1905 to seek retribution, because the patent expired the following year on October 15. Nevertheless Becker bought Day's interest in the patent. But by the time Durant arrived on the scene, this patent was no longer valid. Nor did Durant receive the patent for the diagonal bypass screen because this was assigned to Becker, not the Elmore Manufacturing Company.[11]

Endurance competition suited the Elmore. A 1904 Pathfinder model driven by road tester, Percy McGargle, completed two round trips from New York to St. Louis at the time of the World's Fair. Only a 25-cent part was need to restore the car to perfect working order after the two laps. The 1905 and 1906 Glidden Tours were challenged. An Elmore was the only car to score a perfect record on the Munsky Tour from Washington to Boston in September 1909.

By far the most popular two-stroke was the Elmore. Other competition came from the Acme, the Amplex, the Atlas and certain models from Oldsmobile and Paige.

The Elmore was marketed as "The Car That Has No Valves" throughout its life and promoted the simplicity of the two-stroke aggressively. Another advantage that Elmore stressed in its advertising was that the two-cycle engine was flexible in its fuel requirements—"will run on gasoline, and after warming up, on alcohol, kerosene, whiskey and a mixture of all."[12] Fortunately, Durant was paying attention. Once Durant was pushed out of GM the first time, the bankers showed little interest in the Elmore make. Production was transferred from Clyde to Detroit in 1911 but ceased in 1912. The sale of the Elmore property for $50,000 was authorized on January 5, 1916.

(Endnotes)

[1] *Horseless Age*, December 20, 1899, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 17.

[2] *Horseless Age*, June 6, 1900, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 16.

[3] *Horseless Age*, November 5, 1902, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 516 and January 14, 1903, page 109.

[4] Beverly Rae Kimes and Henry Austin Clark, Jr., *Standard Catalog of American Cars, 1805 - 1942*, Krause Publications, 1996, Iola, WI, ISBN 0-87341-428-4, page 506. [17- 18] *Horseless Age*, May 29, 1901, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 190 and Cycle and Automobile Trade Journal, December 1904, (1897-1911), (Became part of Motor Age), Advanstar Communications Inc., Duluth, MN, www.MotorAge.com, page 90.

[5] *Horseless Age*, May 29, 1901, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 190.

[6] *Horseless Age*, December 20, 1905, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 801.

[7] *The Automobile*, January 4, 1912, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, Table of Specifications of American Chassis on the Market for the Season of 1912, page 21, and *Motor Age*, January 4, 1912, Advanstar Communications Inc., Duluth, MN, www.MotorAge.com, Motor Specifications of Pleasure Cars Made by American Manufacturers for the Season of 1912, page 65.

[8] Richard M. Langworth and Jan B. Norbye, *The Complete History of General Motors, 1908 - 1986*, Publications International, 1986, Skokie, IL, USA, ISBN 0-517-60413-2, page 41.

[9] Arthur Pound, *The Turning Wheel*, Doubleday, Doran & Co., 1934, New York, NY, page 122.

[10] *The Automobile*, November 25, 1909, (Superseded by Automotive Industries), Versailles, KY, ISSN 1099-4130, www.ai-online.com, page 934.

[11] *Cars and Parts*, June 1985, Bill McGuire, Amos Press Inc., Sidney, OH, page 40.

[12] Philip Hillyer Smith, *Wheels Within Wheels*, Funk & Wagnalls, 1968, New York, USA, page 19.

310 CYCLE AND AUTOMOBILE TRADE JOURNAL.

Elmore

Valveless Two Cycle

This $1,750 Elmore Produces Some Results That A $6,000 Car Cannot Give.

It Has Double the Power Impulses of the Ordinary Car—Irrespective of Price.

Isn't that rather a distressful thought to the man who owns a car of the highest cost?

Isn't it rather comforting to the man who has imagined that moderate cost means lesser efficiency?

You'll want a reason in your own mind why drivers of other cars are continually changing machines.

Model 36-B (illustrated)—Touring Car for five. 50 H. P., 4-cylinder, High-Duty Motor; 114-in. wheel-base; 34 x 4 in. tires. **$1750**

You'll want to know why Elmore owners buy more Elmores—why they talk Elmores at every opportunity—why they never cease advising the purchase of Elmore cars.

Here's the dead wall of facts you will come squarely up against:

The Valveless High Duty Motor in Model 36-B gives the same power as the Elmore model sold last season at $2,500.

(And with this excess of power at this season's price the distinctive Elmore ease of control is retained with all the special advantages of the new motor.)

The gas distributer of the High Duty Motor admits gas early or late, as desired, producing at will a high or low-powered car.

(Understand clearly this tremendous advantage for the Elmore driver, which cannot be obtained in any other car made.)

The Elmore, on high gear, can be driven at a lower speed than any other car, because of the unequalled frequency of its power impulses.

(To appreciate this tremendous advantage, compare the Elmore with an ordinary four-cylinder car—or, better yet, with the highest type of "six.")

With every revolution of the Elmore crank-shaft you have twice the power impulses possible per crank-shaft revolution of a valved motor.

(Six valved cylinders are much better than four, yet they are as far behind the Valveless Elmore as the four cylinder valved motor is behind the six)

The Elmore has no small outer parts to keep in tune, no valves to regrind, no worry-makers of any sort.

(The only sure thing about a valve is that it should be repaired, reground or replaced at frequent intervals to maintain the original efficiency of its cylinder.)

The efficiency of a valved motor depends absolutely upon the exact timing of its valves, and their actuation by means of twenty or more small outer parts on each cylinder.

(A valve which is not timed to the 1-200 of a second, loses at least one-fifth of its efficiency.)

To sum the whole thing up, turning power, torque, depends upon sustained impulse.

(This one point goes right to the heart of the automobile proposition as regards any car ever made.)

You cannot get the turning power from a motor with valves that is produced by an equal number of Elmore cylinders, or by six cylinders against the Elmore's four.

(When all is said and done, turning power is the chief thing for which you exchange your dollars in buying any car.)

You must, therefore—you absolutely must—measure the efficiency of every other car's motor by that of the Elmore.

Roadster Model 25, 30 H. P., $1,200. Touring Model 25, 30 H. P., $1,250. Demi-Tonneau (Detachable) Four Passenger Touring Model 36-B, 50 H. P., $1,750.

ELMORE MANUFACTURING COMPANY
904 Amanda Street, Clyde, Ohio

a larger capacity of cylinder and lighter machines, with gears as shown in Fig. 1 and

Editor's note: This is a suppliment to the "Elmore Manufacturing Company of Clyde, Ohio (1900 to 1912)" article, which was referenced in the End-notes, providing a period in-depth look at the Elmore automobile.

that it has been tried against, while it is

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The 1905 Elmore Pathfinder (2-Cycle Engine)

HUGH DOLNAR.

The distinctive feature of Elmore cars, made by the Elmore Mfg. Co., Clyde, Ohio, is and always has been the employment of a 2-cycle engine of the Elmore Co.'s own design for their propulsion.

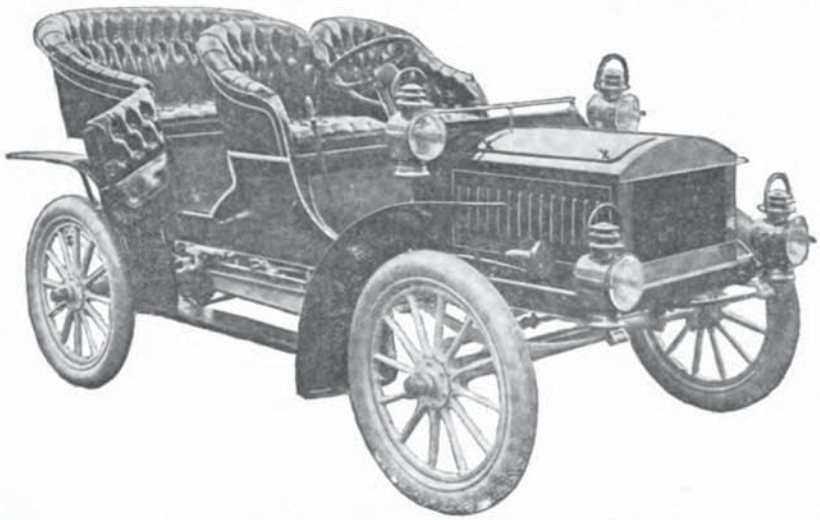
The 2-cycle motor has very great advantages in the way of fewness of parts, but has not been generally applied to motor car driving with such convincing results as to place it in a commanding position for road service, and its principal use so far has been in small sizes for small boats, and as a stationary motor for farm and dairy use.

There is a general impression among motor car designers and builders that the 2-cycle gasoline motor is wasteful of fuel and that it has no flexibility of power production. Consequently, notwithstanding the extreme simplicity and the very certain action of the 2-cycle motor, only one American firm, the Elmore Manufacturing Company, has taken up the 2-cycle motor to any extent for automobile driving.

The 2-cycle gas engine is twice as effective, cylinder for cylinder, as the 4-cycle motor, because the 2-cycle works about half the total running time while the 4-cycle works only about one-quarter of the running time. Added to this great time-in-work advantage, the 2-cycle gas engine is the very simplest of all heat motors that is at all suitable for road wagon driving, as it has only three moving parts, the piston, the connecting rod and the crank-shaft, no valves nor cams being used.

In brief, then, a pair of 2-cycle cylinders, say 4½x4 ins., should be as effective in car driving as four 4-cycle cylinders of the same dimensions, with far less first cost, far less up-keep charges, far less liability of derangement, and far less demands on the car and attention of the driver.

These advantages are so great that on first seeing a pair of 2-cycle cylinders at work, turning the crank shaft as smoothly, as rapidly and as powerfully as the very best of the extremely complicated and costly 4-cylinder motors made, it seems to the writer that the best and easiest-built form of the gas engine has been shoved aside by car builders, for the mere pleasure of encountering and overcoming mechanical difficulties. But gas-engine car-motor makers almost without exception declare that the inflexibility of the 2-cycle motor puts it out of the question, and that the simplicity and effectiveness of the



The Elmore 1905 Pathfilder side-entrance tonneau. Wheel base 83 in., gauge 56 in., double cylinder, 4½x4, 16 H. P. engine, weight 1500 lbs., price $1,250.00.

2-cycle motor count for nothing, as against the complete control of the 4-cycle motor, which in its now truly marvelous stage of development is as flexible as the most highly organized steam-engine, and perfectly meets the widely varied demands for power in car driving on common roads.

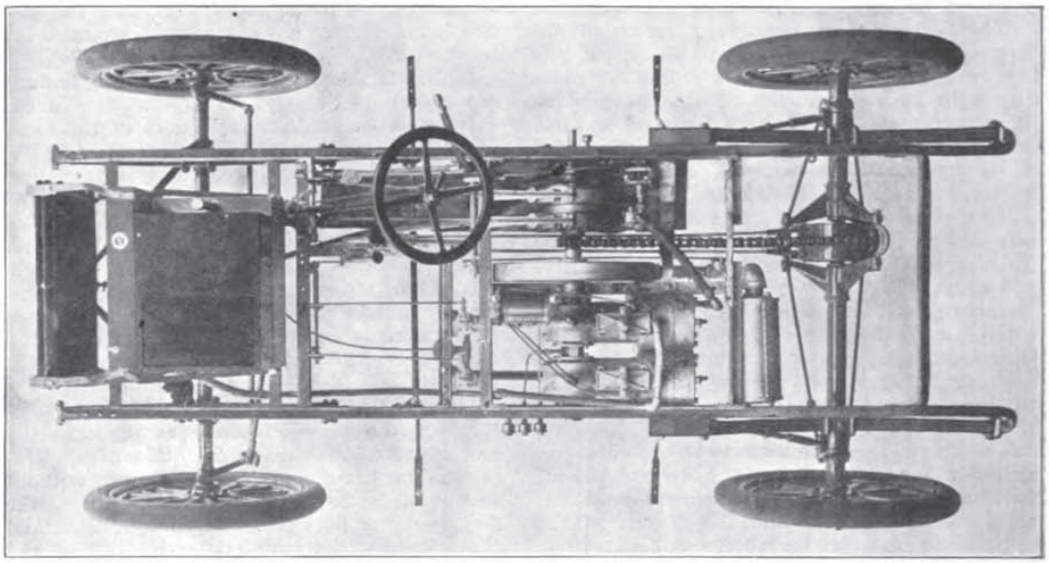
In 1898 the Elmore Manufacturing Company which was making about 100 bicycles per day, began the construction of a 2-cycle motor from the drawings supplied them by the designer and had a car on the road in 1900, total weight about 635 lbs., driven by this first Elmore 4x4, 2-cycle motor. This car could make about 10 or 12 miles an hour on a good level road, had small powers as a hill-climber, and the motor (surface carburetor) never showed more than 1 7-10 B. H. P.

In 1901 the Elmore Company had a two-cylinder 2-cycle motor driven car on the road, cylinders 4x4. At this time the motor had been improved by changes in port location and dimension, and the installation of a "vaporizing" valve, so as to give about 3½ B. H. P. per cylinder, 7 B. H. P. total for the pair. The car weighed about 1050 lbs., 2 passengers. The 1902 Elmore, 2 passengers, weight about 1200 lbs., was driven by the same motor, a pair of 4x4, 2-cycle cylinders, still hammer-spark, but with power increased by change of proportions up to 4 B. H. P. per cylinder, 8 H. P. total. So far as known, all these little cars are yet in use, and have given good satisfaction. The 1903 Elmore weighed about 1600 lbs., 2 passengers, 2-cycle motor, two cylinders 4x4, planetary transmission, motor about 8 H. P., hammer-spark, price $800.00. The 1904 Elmore, 1260 lbs., a low cost 4-passenger car, had a single 2-cycle cylinder, 4½x4, 8 B. H. P., jump-spark, planetary speed-change, two forward speeds and reverse, was shown; price $850.00, tonneau body. In 1904 the Elmore Company sold all the cars it could build, and these cars gave good satisfaction. The transmission is very good indeed, and no detail of the car gives trouble. The jump-spark gave good results and a change to a new carburetor, Elmore design, was also very satisfactory.

THE 1905 "PATHFINDER."

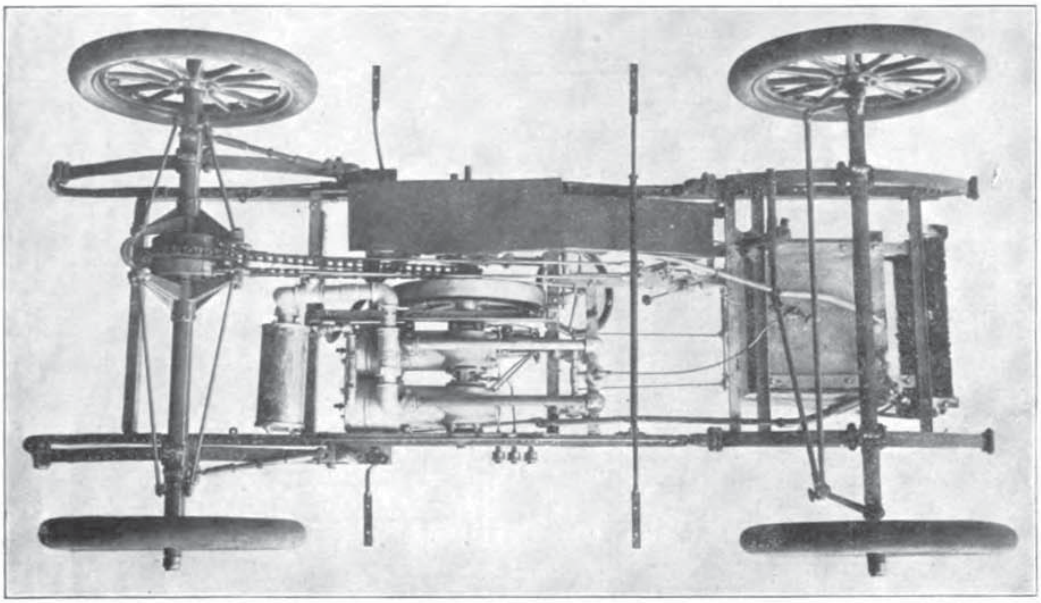
Having satisfactory orders for the 1904 single cylinder "Elmore," the 1905 model was at once begun by the Elmore Company, and was placed on the road about May 12th, 1904. The weight of the first 1905 model was about 1460 lbs. The motor was a pair of 2-cycle cylinders, 4½x4, tonneau body, 4-passengers. This car gave such an exhibition of power from the very first that the Elmore management was assured of a commanding success, and was ready to undertake any task that could be put before the new wagon.

Two newspaper "free lances," Percy F. Megargel and W. S. Harrison, of Rochester, N. Y., saw in the St. Louis tour an opportunity to sell advertising and illustrated exclusive stories by making an advance New York to St. Louis run independently, selecting a favorable route and mapping it for the use of the drivers in this contest, and finally taking part in the event in the pioneer car, and writing the story of the journey, sure to be of considerable interest to automobilists at large. Megargel and Harrison had no car, but were familiar with the 1904 Elmore and had a good opinion of it, and wrote the Elmore Company, strangers to them, requesting the loan of a 1904 model car for this preliminary route-selecting run. After investigation the Elmore management acceded to the request, and Ralph Megargel, a younger brother of Percy F., came to Clyde and had a week's coaching on the "Pathfinder," as the Elmore car selected was named, and started from New York, May 18th, to pick



Plan of Pathfinder Chassis.

out the route, ran back from St. Louis to New York, arriving at 1 o'clock A. M. of July 25th, and started in the scheduled "Endurance Run" at 9 o'clock A. M. of the same day. The Pathfinder was the only Elmore car in this run; the car itself carried all the repairs supplied—one connecting rod, spark plugs, extra chain, one extra tire cover and two inner tubes; except the tires, all the spare parts arrived at St. Louis with the car at the end of its third run over the route, 4500 miles total, one connecting rod bush and the chain having been replaced during the run, no other repairs needed. The car carried the three "Pathfinders," Percy F. and Ralph Megargel and W. S. Harrison, Ralph being the regular driver, seldom relieved. The Pathfinder made every control on time, was penalized for nothing, and received the Association Certificate of "Perfect Performance."



Underside of Pathfinder Chassis.

The highly successful performance of this car led to the adoption of its name for all Elmore touring cars, having substantially the same general construction features as the original "Pathfinder," which covered about 6000 miles total in the three tours between New York and St. Louis, to Clyde, Ohio, return home, and in the week of preliminary instruction at Clyde, with only the previously specified replacements and one spring leaf, repairing a breakage.

SPECIFICATIONS 1905 ELMORE PATHFINDER.

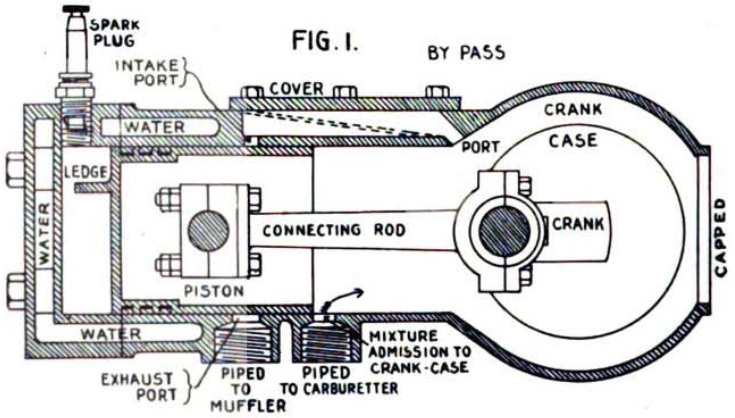
The 1905 Pathfinder dimensions are: Wheel base, 83 ins.; gage, 56 ins.; wheels, 30 ins.; tires, 3½ rear, 3 ins. front; motor, 2-cycle, double cylinder, 4½x4, nominal 16 H. P. (brake test, 800 R. P. M.) Side-entrance tonneau body, to seat 5 passengers; weight 1500 lbs., all on; price, $1250.00.

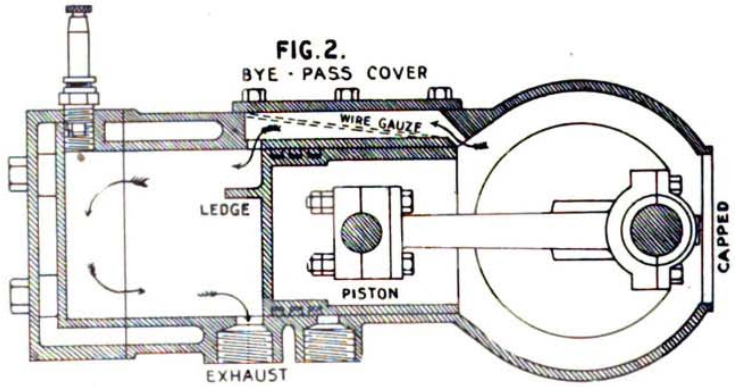
ELMORE 2-CYCLE MOTOR.

The cylinder head is separate from the cylinder, and screwed to it with 5 hexagon head ½ in. screws, tapped into the cylinder. The cylinders are cast in one piece with the crank-box, which is open at both sides to take the crank-shaft boxes, and at the right end to support the core in the mould, and capped with a thin cover, to make the crank-box gas-tight. The mixture from the carburetor is drawn into the crank-case, which is kept small to obtain sufficient compression. The mixture enters the crank-case through an admission port on the underside, which is pipped to the carburetor. This port is closed by the piston for about 270 degrees of crank revolution, and is full open when the piston is at the left, compression, end of its travel. As the piston moves to left from the extreme right position shown in Fig. 2, a partial vacuum is formed in the closed crank-case. As the piston nears the end of its travel to left the mixture admission port is opened, and mixture from the carburetor rushes in to fill the partial vacuum in the crank-case. Then the piston moves from extreme left position, shown in Fig. 1, to the right, covering up the mixture port, and compressing the mixture in the crank-case. As the piston nears the right extreme of its travel, Fig. 2, the in-take port, opening from the cylinder to the by-pass, which is always open to the crank-chamber, is uncovered, and the mixture compressed in the crank-chamber rushes into the cylinder through this intake-port. See Fig. 2. The mixture entering the cylinder pushes the remainder of the exhaust, the burned-charge-residue of the fired-charge, which fills the cylinder, before it, and the ledge, integral with the grey-iron piston, causes the entering charge of mixture to travel to left, as shown by the arrows, and push the exhaust residue out before it through the exhaust-port, instead of mixing with this exhaust residue, so as to fill the cylinder

with pure mixture. The exhaust-port is much wider than the in-take port, and opens long before the in-take opens, so that the larger part of the burned charge escapes before the in-take port is opened and the mixture from the crank-case begins to enter the cylinder. Back-firing is prevented by means of a fine wire-gauze screen supported on perforated sheet iron, and fixed, see illustration, in the by-pass at an inclination, as shown by the dotted lines. Flame will not pass fine wire-gauze, and this device prevents the lighting of the mixture in the crank-case. The width of the admission-port is such that it opens to the cylinder for about 90 degrees of crank revolution, the admission-port from the carburetor to the crank-case is wider yet, and the exhaust-port is widest of the three. The actual dimensions are: Cylinder diameter, 4½ ins.; piston stroke, 4 ins.; in-take-port width, ⅜ in.; length, 1⅞ ins.; admission-port to crank-case, 9-16 wide, length 1¼ ins. The ledge, integral with the piston, which deflects the entering charge and makes it sweep the cylinder clear of the exhaust residue, is made of varied forms by different makers, and is in each case supposed to greatly affect the motor efficiency. This ledge has been the subject of experiment at the Elmore works, and is believed to be best as shown, extending entirely across the piston, and being one inch wide, in this example,—¼ piston stroke.

The compression chamber is 1¼ ins. long, as shown in Fig. 1, and these dimensions leave a space of ¼ inch through which the lighting of the larger part of the compressed charge, which is below the ledge, must proceed, as the spark plug is on top.



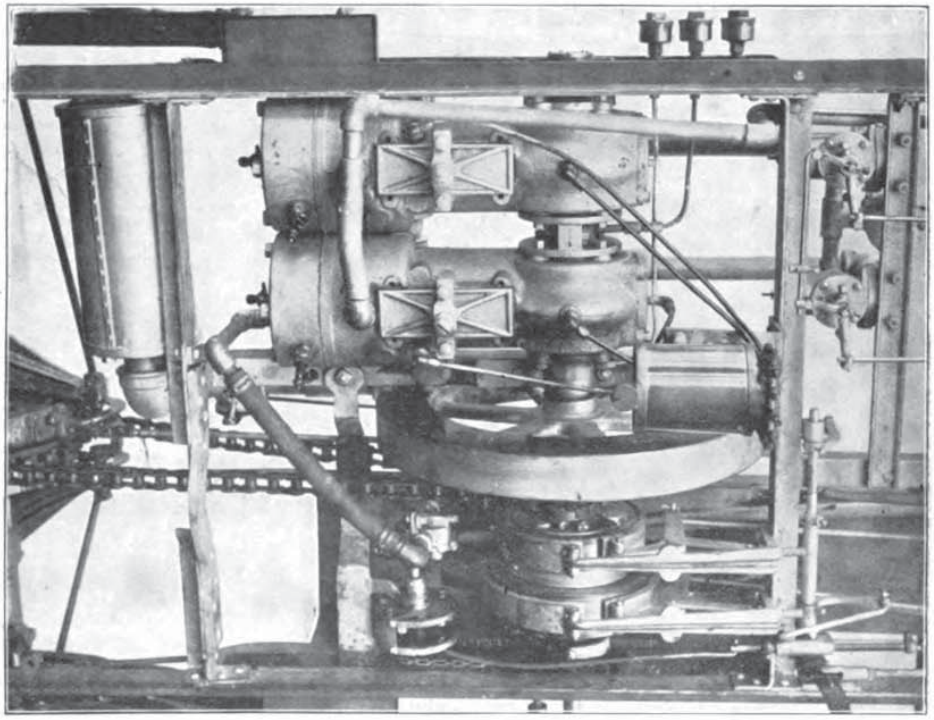


Elmore 2-cycle gas engine in sections. This is the simplest form of heat-motor suitable for car-driving. Its 3 moving pieces are the piston, the connecting rod and the crank-shaft. It has no valves and therefore no cams nor cam-shaft. The piston is made to cover and uncover the ports, and so act as the valves. The crank-case is gas-tight, and mixture is drawn into the crank-case on one piston stroke, and forced out by the other piston stroke, going into the cylinder. Then the next piston stroke compresses the mixture charge in the cylinder, the charge is fired, and pushes the piston through the next stroke, so that the explosions turn the crank-shaft half of the time. The 4-stroke-cycle motor turns the crank shaft one-quarter of the time only, for each cylinder of the motor, so that one 2-cycle cylinder gives the same turning effect, or "torque" on the crank-shaft as two 4-cycle cylinders.

The crank-shaft bearings are grey-iron sleeves, babbitted with the best metal, which is first expanded by 3 small, hard rollers forced outward by advancing a taper plug on which the rollers rest, and traversing the rollers through the babbitted bush, chucked in the lathe and revolving. After expanding, the solid sleeve bearings are bored and reamed to size.

The crank-shaft is made by hand-bending a round 1 9-16 diameter bar of special high-carbon machine steel, to make two cranks

108 degrees apart. The finished crank-wrists are 1 7-16 diameter, and the three journals are 1⅜ ins. diameter x 3 ins. long. The journal-boxes are non-adjustable. The connecting-rod is a steel casting with a bronze box, babbitted, on the wrist, and a bronze wrist-cap, not babbitted. The piston pin is one inch diameter, with a ¼ in. hole clear through, is hardened and ground, and is held by cupped set-screws with check-nuts in the piston bosses. The piston end of the rod is marine type, with bronze boxes, forced hard together by ½ in. steel studs with nuts and check-nuts. The pistons are straight cylinders in form, not ground, fitted to drop through the cylinder when cold. The rings are eccentric, special hard grey-iron, turned under compression, not ground, and do not lap at all, the meeting ends being hollowed



Plan of Pathfinder motor and transmission. The commutator and pump-shaft are seen close alongside the planetary gear case, at the left-hand side. The shaft is driven by chain and sprockets from the transmission shaft. Three heavy grease cups at frame side, on top in the picture, are piped to the crank shaft journal boxes. The by-pass covers are seen on top of the cylinders.

to permit a pin being driven into the piston to keep the ring in place.

The oiling is by an oil-catcher groove cut in the top of the rod, fed from a sight-feed oiler, which gives oil to the crank-wrist through an oblique oil hole. The piston is oiled by the "oil-mist" always present in the crank chamber. The bronze piston pin-boxes have an oil-catching groove on top, and oil-ways to the pin. The hollow pin also scrapes oil off the cylinder bore, and two oil-holes in the pin lead to the bronze pin-boxes. Since the mixture is drawn into the crank-case and compressed and then rushes out of the crank-case into the cylinder, it is clear that part of the lubricating oil must go into the cylinder-charge, and be burned as power-producing fuel. The mixture cools the crank-box in its passage through it, and keeps the crank-box always at a comparatively low temperature, so that the 2-cycle gas-engine, though making twice as many explosions for the same crank-shaft, R. P. M., is actually easier to cool than the 4-cycle gas-engine, same dimensions. The writer may properly say here that he has seen a small 2-cycle motor, about 3½ ins. piston diameter, run strongly at about 2000 R. P. M., though it is often stated in print that the 2-cycle motor cannot do good work if run fast. The Pathfinder engines make about 800 R. P. M. at 20 miles, ordinary gear.

The crank-case pressure is enough to cause the contained mixture to move rapidly at the time of charge entrance to the cylinder; the crank-case is made small to obtain as much case-pressure as may be. Over-oiling by the sight-feed may send so much lubricating oil into the cylinder as to cause a smoky exhaust, but does not soot the plugs, nor make the motor miss explosions.

The maximum compression is only about 63 lbs. The charge is somewhat warmed in the crank-box, but as the entering charge is under a small pressure, the cylinder charge is said not to be below atmospheric pressure save in case of throttling, at the beginning of the compression stroke.

THE CARBURETORS.

Two carburetors are fitted in front of the cylinders, close together, one for each cylin-

der. The throttle works on both the gasoline and air admissions, the fuel and air valves being linked to act together, and the charge volume-regulation, shown in these illustrations as effected by a rock-shaft and plunger-pedal, is to be changed to a rock-shaft control, same as the spark-control now is, placed beside the steering-post, with its hand-lever, ratchet-retained, close under the hand-wheel.

THE CHASSIS FRAME.

This is bent at two right angles in front from 2x1½x¼ in. angle steel, narrow member at bottom, wide member vertical, on the inside, with 6 cross girts, 4 of angle steel, 2 of channel steel, 3 riveted to the vertical inside member, and 3 to the bottom horizontal member, all these last flush riveted on top, so that the body sits flat on top of the horizontal frame member. The 3 angle steel sub-frame members are 2x1½x¼, narrow member on top; horizontal, all cold riveted to the under sides of the cross girts, and the 2 outside ones also riveted to the chassis frame. The spring-eyes, center to center, are 119 ins. The spring-eyes are drop forgings, cold-riveted to the under side of the chassis frame, which is 33¾ ins. wide over all.

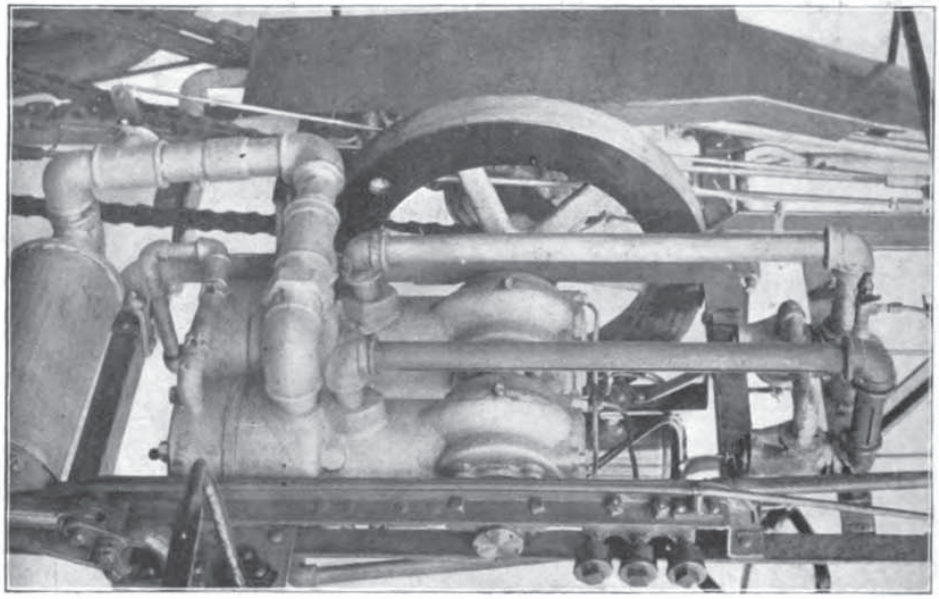
The motor is placed on the sub-frame, near the chassis frame middle, on the left-hand side, with the two carburetors in front, fly-wheel next to cylinders, and the planetary speed change on the left, outside the sprocket, and the muffler in the rear. The cylinder by-pass covers are held down with bails and one screw over each, so as to give ready access to the wire-gauze back-fire preventer, which only needs cleaning when a great oversupply of lubricating oil has been made to the crank-case.

The struts are flat eyes at both ends, with long hubs tapped right and left, connected with a threaded turning member, hexagon in middle, retained with one check-nut. The rear axle brake-drums are 8 ins. diameter x 2 ins, face, leather-lined bands, ratchet-pedal applied, through an evener. The reverse is used as an emergency brake.

The speed change lever is vertical, inside the body, at the driver's right, and is latched in mid position, neutral. Pushed forward, the lever applies the slow-speed brake-band. Pulled to rear, it works the high speed clutch.

THE SPEED CHANGE.

This is planetary, two speeds forward and reverse, with two brake-bands, toggle-joint operated, low-speed inside, toggle passing center, and so holding low-speed engagement until hand-lever released. The reverse-band is outside, pedal-operated, and the toggle does not go to the center, so this brake is self-releasing as soon as the pedal is released. The fly-wheel turns top to front, the brake-bands are hung to front horizontal supports, and the free brake band-ends rise forward from underneath, so as to be self-relieving when released. The high-speed clutch is an internal expanding, fiber-faced, cut ring, sliding-cone and rock-shaft operated, the adjusting screw being placed in the end of the one rocker-arm. All the gear changes are made with little exertion.



Under side of Pathfinder motor and gear, showing construction and piping.

The planetary organization includes two internal gears, and 4 reverse planet-pinions, and 3 low-speed pinions, all steel, 12 D. P., all on roller bearings. The gear-case is packed with heavy grease.

The commutator has platinum contacts, cam-toe against a steel spring, fiber insulation; the commutator cam and one pump-pinion are both fixed to one shaft in rear of the change gear, chain and sprocket driven from the transmission shaft.

WATER CIRCULATION AND RADIATOR.

Two tanks and two batteries of 6 cells each

are carried under the sheet iron hood. The water tank, 4 gallons capacity, galvanized iron, is vertical in front, near the Briscoe radiator, and the fuel tank, 10 gallons, galvanized iron, is placed to the rear of the water tank, and carries the tool-box and battery-box on top of it. The water circulation is from the bottom of the water tank to the pump, pump to bottom of water jackets, top of water jackets to top of radiator, and bottom of radiator to bottom of water tank. No fan is used, and the water never boils. The water loss is small, leakages only, save overflow at starting with a full tank.

STEERING.

The steering post is fixed, and the steering action is a 16-tooth pinion, 10 D. P., keyed to the steering wheel shaft, and engaging a round-bodied steel rack. The knuckle arms extend to the rear, flat-jointed parallel rod, non-adjustable length, two globe joints in steering connection, both screw adjusted.

The muffler is of the three concentric-shells type, 6 ins. diameter outside x about 13 ins. long, and is fitted with a pedal-plug-operated cut-out. The mixture supply and the exhaust piping are plainly shown in the illustration of the under side of the motor, and the whole driving system is so very simple as to need little detailed description. A large sheet-iron shield placed under the change gear, keeps mud away from it.

THE AXLES.

The rear axle is a Weston-Mott, two brakes inside the sprocket cage, with an evener, regular ratio crank-shaft to rear axles 3½ to 1. Roller chain 1¼ ins. pitch. Rear axle sleeve, 2½ ins. outside diameter, axle diameter 1¼ ins., no thread or shoulder, full strength, spur balance-gear, wheels keyed and pinned, axles removable towards center only. The inner ends of the axles meet, and have adjustment collars pinned and brazed to them, and these collars abut against ball-bearings at each outside, so that all side thrusts on the rear wheels are taken on the two ball bearings. The spring perches are malleable castings pinned and brazed to the axle sleeves. The divided rear axle is carried on four cages of Hyatt roller bearings.

The front axle is also a Weston-Mott. The front axle sleeve is 2 ins. diameter, malleable spring perches, pinned and brazed, and the steering arms lead to the rear. The front wheels are each carried on two circles of balls, ½ in. diameter.

The springs are half-elliptics, 36 ins. rear, placed outside the chassis frame, and 34 ins. long in front, placed under the chassis frame.

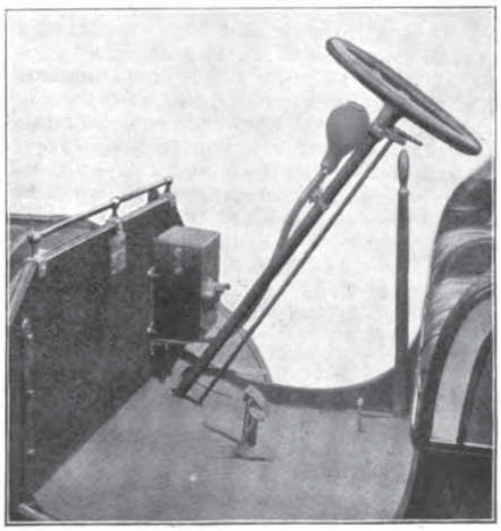
LUBRICATION.

Three brass heavy-grease screw-cap compression-cups at the left side of the chassis frame, take copper leads to the three crank-shaft bearings, and four sight-feed oil-leads supply the cylinders and connecting-rods.

CONTROL.

The spark and throttle rockers, alongside the steering post, have horizontal hand-levers, ratchet-retained, close under the hand-wheel.

Both carburetors are regulated from one rock-shaft, worked by the vertical plunger pedal at the left of the rear brake-pedal. Rods from the rocker-arms lead to the carburetor air-valve arms, and each carburetor also has its own gasoline needle valve as well as its air admission valve, and these two are linked together for each, so that movement of the rock-shaft reduces both the fuel and air supply to the carburetor of each cylinder, and so that the crank-case mixture-supply is reduced, though its quality remains constant. The needle valve has a threaded stem, which is independently rotated by a horizontal notched slide on the front of the driver's seat, so that moving this "needle-valve adjustment" makes the mixture richer or poorer. This gives a permanent relation of the air and fuel volumes through the rock-shaft, plunger-pedal operated, which may be varied by the horizontal slide, and yet be recovered at any time by returning the slide



1905 Elmore Pathfinder—Front board, pedals, levers and steering wheel.

to its original position, and so varies the mixture delicately, to meet atmospheric changes.

ON THE ROAD.

The country about Clyde is flat, and gives no hill climbing. The road selected for a measured-fuel run was a dry, smooth clay surface, nearly level, 6½ miles long, with two right-angle turns about 2 miles from one end, with, of course, a half-turn at the middle of each round trip.

The car weighed, all on, Mr. Holloway driving and the writer alongside in the front seat, 1910 lbs., Howe-scale weight, at starting. There was little wind, and the round trip, 6½ miles and return, neutralized all advantages. There was some country traffic, and the route crosses several bridges and one railway, at all of which speed reduction was needful. Three runs were made. The first was 13 miles, one round trip, fuel consumption 96½ cubic inches. Time about 30 or 31 minutes. About 31 miles per U. S. gallon, 231 cubic ins. of gasoline.

The second run was 26 miles, 2 round trips.

Time, 51 minutes. Fuel consumption, 241 cubic inches, nearly 25 miles on one U. S. gallon, 1910 lb. car driven at the rate of over 30½ miles per hour.

The third run was made to find out something about the fuel consumption on low speed, and the intention was to do the 13 miles on the high-speed in one hour, but the closest throttling that would give constant explosions drove the car over the course and back in 46 minutes, with the same 96½ cubic ins. consumption of gasoline, about 31 miles to the U. S. gallon of gasoline, and showed the performance of the motor to be as good as could be expected for such a low-power run. The control was perfect, and the whole action of the car was satisfactory.

POWER AND FLEXIBILITY.

The nominal rating of this motor is 16 H. P. The car was very strongly driven, and the fuel consumption per mile proportioned to the speed, rather less fuel is used per mile at low-speed rates than at high speeds. On the high gear the car ran 13 miles in 46 minutes and also 13 miles in about 30 minutes with about the same amount, 96½ cubic inches of gasoline. The other run, 26 miles in 46 minutes, using 241 cubic inches of gasolins, shows 25 miles on one gallon of fuel.

Experienced car drivers can tell whether this is a good mileage per fuel gallon, 1910 lbs. car, on a rough country road. The verdict must be that few four-cycle motors have a record of much better performance.

As to control, the writer has been driven in some 1905 cars by good drivers, and in no instance has he seen any car more perfectly responsive than this 1905 "Pathfinder." The regulation of motor-power was constantly by fuel and air variations, simultaneously effected, and by hand spark control. All runs were made exclusively on high speed.

SIMPLICITY OF MOTOR.

When it is remembered that this performance was made with no missed explosions, except a very few when the motor was throttled as low as possible to try to make only 13 miles per hour, and that the motor has no valves, no cams, no gears, no anything but the piston and rod and crank-shaft, and was driving the crank-shaft with an approximately continuous torque, same as the 4-cycle 4-cylinder motor, with only two of these simplest of all prime-mover cylinders, it is quite evident that the 2-cycle gas engine must be considered as a very prominent factor in motor car lowest first-cost, up-keep and efficiency.

An actual run on the road with measured fuel must be regarded as more satisfactory than the most rigid laboratory test, because the road run gives working conditions. All observations were made conjointly by Mr. Holloway and the writer, and are as accurate as the measuring instrument used would permit, and probably vary very little indeed from the facts, and the stated results wholly refute the assertion that the 2-cycle motor is wasteful of fuel, and is a bad form of gas-engine on throttled charges.

The 1905 Winton Line

An advance circular issued during the past month by The Winton Motor Carriage Co., of Cleveland, Ohio, gives quite some information regarding their 1905 models. The Winton line for 1905 will comprise a 40 H. P. $4500 car, (Model A Special); a 40 H. P. $3500 car, (Model A); a 24 H. P. $2500 car, (Model B), and a 16 H. P. $1800 car (Model C). We give herewith a general outline of the constructive features of these cars and will in a later issue print more elaborate descriptions with illustrations. The information given applies to all models.

The motor consists of 4 vertical cylinders, water cooled, placed under the bonnet. The cylinders are cast in pairs, with heads, water jackets and exhaust valve chambers integral. The crank shaft, connecting rods and pistons are instantly removable by detaching one side of the aluminum crank case, which is split vertically. This process leaves the cylinders in place on the case, and does not disturb the water tubes, carburetor tubes or any of the other motor accessories. All camshaft gears are enclosed. A dust pan under the motor is a permanent fixture. Since all work of inspection, adjustment and replacement can be accomplished from above, it is never necessary to get beneath the motor.

A single water-jacketed carburetor, placed close to motor, supplies all cylinders.

The gasoline is pressure fed from the main tank to the auxiliary tank, and thence gravity fed to the carburetor float chamber. The auxiliary tank is placed immediately above the carburetor.

A recently developed, reliable magneto furnishes the igniting current. This magneto is direct connected and driven by a positive gear. A single non-vibrator coil is used with this magneto. The spark advance lever is attached to the steering column on top of the hand wheel.

Transmission is by means of the Winton individual clutch system of gear changing and shaft. The universal joints on the shaft are enclosed. The transmission is easily accessible by raising the footboard.

Lubrication is by means of a roller feed oiler, which has no springs or valves and feeds in exact proportion to the speed of the motor. The motor and rear axle bearings are lubricated from the same oiler and the transmission is splash lubricated.

Water circulation is effected by a gear-driven centrifugal pump. The radiator consists of vertical tubes with fins. A secondary suction fan is cast for in the flywheel.

The rear wheels are keyed to the axle, which runs on roller bearings. A spur differential is used. The steering gear is of the screw and nut type. The spark and throttle levers above the steering wheel vary the lead and operate the throttle through spiral cams in the steering column. A band brake on the driving shaft is operated by a forward move-

The musuem campus as Donald Gilmore built it.

The Gilmore Car Museum: A 125-Year Evolution

By David O. Lyon

The Gilmore brothers moved to Kalamazoo, Michigan, in the late 1800s to escape the lingering financial distress of the potato famine as well as new challenges to Ireland's agrarian economy. John Gilmore immigrated to the United States in 1881, married Mary Downy of Portage, Michigan, and they opened a clothing store in Kalamazoo which was most successful. The younger brother, James, arrived in 1883, and the brothers formed the Gilmore Bros. Department Store before the end of the year. James Gilmore married Carrie Sherwood of Galesburg, Michigan, in 1886. John and Mary had four children before her death in 1891 and his death in 1895, leaving the responsibility of the brother's family in Carrie's hands. When Carrie's husband James died in 1895, she assumed the responsibility of the two families as well as the blossoming Gilmore Bros. Department store. In the same year she gave birth to a son, Donald Sherwood Gilmore, the eventual founder of the Gilmore Car Museum.

Kalamazoo resident William Erastus Upjohn or just "W. E." as he was known, was born in nearby Richland, Michigan. He attended the University of Michigan Medical school and completed one year of study in pharmacy before he married Rachael Phoebe Babcock from nearby Galesburg. In 1878 W. E. Upjohn developed the first "friable pill," which would dissolve after ingestion. His friable pill was the resolution to "the golden era of medical quackery." His invention laid the groundwork for the renowned Upjohn Pharmaceutical Company, which was acquired by Pfizer in 2002. W. E. Upjohn and Rachel Babcock gave birth to a daughter whom they named Genevieve Jane Upjohn.

Rachel Babcock Upjohn passed away in 1905 and James Gilmore passed away in 1908. The Gilmore family and the Upjohn family lived next to one another on the prestigious South Street. Eventually, in 1913, W. E. Upjohn and Carrie Sherwood Gilmore were married, bringing together the two most prominent and influential families in Kalamazoo.

Carrie Gilmore's son, Donald Gilmore, and W. E. Upjohn's daughter, Genevieve, were married in 1915, and they moved to New York City to attend college. Genevieve gave birth to three children, Carol in 1917, Jane in 1919 and Martha in 1925. They returned to Kalamazoo after Carol's birth and Donald Gilmore assumed a supervisory position at the Gilmore Bros. Department Store. W. E. Upjohn died in 1932, and Donald Gilmore became associated with the Upjohn Pharmaceutical Company and subsequently became

president of that company in 1944. The family restructured the Upjohn Co. as a public company before Donald retired in 1963.

Interest in the automobile among members of the Gilmore family began in 1900. George W. Taylor, a local clothier, purchased an 1899 Locomobile steam car, which arrived in Kalamazoo by rail packed in a large crate. Taylor was not sufficiently experienced to operate a steam car, and he called upon W. E. Upjohn for guidance. On April 1, 1900, Upjohn fired up the Locomobile and drove it down Kalamazoo's Main Steet. He subsequently purchased that car from George Taylor, who immediately ordered a second Locomobile. Upjohn was involved in every endeavor to manufacture automobiles in Kalamazoo and was chided by the *Kalamazoo Gazette* for these shenanigans. The editor accused him of suffering from "Horselesscarriageitis."

Subsequently, Upjohn drove that Locomobile to Buffalo, New York, to promote his pharmaceutical products and was the first resident of Kalamazoo to use an automobile to promote his business interests. Upjohn sold the car about two years later and bought a White steam-powered automobile. The Locomobile in the museum's collection was found originally just north of the Gilmore Car Museum near the summer home of the Upjohn family. It was purchased by the museum in restored condition from the Saylor family in 1985. Its location suggests that it may be the original Locomobile that arrived in Kalamazoo in 1900. Surviving Saylor family members recall the car, but not the vehicle's history.

During World War II, Donald Gilmore built a set of wooden tires for his 1940 Cadillac because rubber was rationed, and tires were almost impossible to find. Upjohn employees at the time claim you could hear him coming for miles. He also converted a 1927 Model T Ford to electric power because of the wartime gas rationing.

Donald retired in the early 1960s. His wife Genevieve presented him with a 1920 Pierce-Arrow touring car, which he began to restore inside a tent in the backyard of their home on Gull Lake, some 17 miles from Kalamazoo.

Reportedly, his three daughters did not appreciate the backyard restoration facility and pressured him to purchase farmland to create a place to pursue his vintage automobile hobby **(photo 1)**. He selected about 100 acres, including the Griffith and Kenyon farms on Hickory Rd. and State Highway #40, just 2 miles north of the Gilmore home on Gull Lake.

Donald Gilmore spent much of the winter season at the Smoke Tree Ranch in California, where he became close friends with Walt Disney. In the photo, Disney is wearing a blue sweater and Gilmore is wearing a tan hat. Disney opened the Anaheim, California, based Disneyland in 1955 and it seems reasonable that the Disneyland concept influenced Gilmore's ideas in the 1960s. As Gilmore began building, his plans expanded to create not just a restoration facility, but the beginning of a museum campus with two farmhouses, and

Photo 1. Kenyon Farm through the 1913 Packard glass.

several barns **(photo 2)**. By 1965, the museum included a mixture of authentic vintage structures and replica barns, as well as a small replica of a railroad station and vintage railroad switch tower from Kalamazoo. He also envisioned a steamboat and a channel from the museum grounds to Gull Lake, but was unable to obtain permission from the Michigan Resources to do so.

Photo 2. Walt Disney (l) & Donald Gilmore.

Gilmore was enthralled with the Rolls-Royce automobile and in 1964, like his father-in-law before him, he was chided by the *Kalamazoo Gazette* for his automobile-related activities. He spent $25,000 to purchase a vintage Rolls-Royce touring car, which the newspaper editor considered an extraordinary amount of money for an automobile. In addition to the Rolls-Royce cars, he also collected and exhibited examples of the horseless carriages which were on the streets of Kalamazoo when he was a boy.

Donald Gilmore was ten years old in 1905 and the automobile census that year identified 46 automobiles owned by citizens in the community. It included 16 that were built in Kalamazoo and five steam-powered White cars, a personal favorite of Mrs. Upjohn and the Upjohn family. The two Locomobile steam cars which arrived in 1900, and the Waltham Buckboard, the third car in Kalamazoo, were not on the list. Gilmore's collection also included a variety of luxurious classic cars, steam-powered vehicles and some foreign-built automobiles.

A gift from Walt Disney c. 1968 included the movie set and the 1927 Rolls-Royce which starred in the 1967 *Gnome-Mobile* movie. Gilmore purchased additional Rolls-Royce cars, a London double-decker bus and an Austin taxicab. His collection was interesting and well-purposed.

Typically, the cars were not in an exhibit but were presented in the various barns with information boards identifying the car by name and its year of manufacture, as was the tradition at the time. As guests wandered through the exhibit halls, fathers would often describe the history of each vehicle, or pontificate on the importance of the Ford V-8 and the price for the luxury vehicles. "I lost my virginity in a Model A Ford just like that one," commented one visitor, and a quiet nervous laughter rippled through the group. That was a bit of life in the 1930s, and a bit of education for many of the visitors.

Donald Gilmore passed away in 1979, and Norm Knight became the Gilmore Car Museum Director. As an influential member of the Classic Car Club, he was able to purchase and reconstruct a vintage barn on campus to attract the cars of the Classic Car Club. Since then, that structure has been expanded on three occasions to make room for the periodic expansion of the collection.

Tom Kaiser, former director of the Kalamazoo Art Museum, assumed the museum directorship c. 1997 and under his guidance a replica of a vintage Shell Gas station was erected in 1999 with the support of a State grant, personal donations and work contributions by the Kalamazoo Antique Auto Restorers Club. The grant was insufficient to construct the building, but it drew the support of a number of organizations, and it attracted the interest of regional groups as well as Shell Gas distributors. "Obtain a grant and they will come." Many people simply dropped by the museum with a financial donation or a Shell Oil artifact, from signs to products and even vintage ceiling panels. The cadre of artifact donations and financial support was impressive, making the construction a true community affair **(photo 3)**.

That single accomplishment—together with the existing impact of the Classic Car Club—set the stage for continued growth and construction. Michael Spezia arrived as Director in 2000 and set the stage for growth with an organizational plan. Additional buildings would be vintage structures moved to the campus, replicas of identifiable vintage buildings or structures with a barn motif to match the original museum architecture set by Donald Gilmore. The Pierce-Arrow Museum joined the Classic Car Club of America Museum on campus in 2004 with a barn motif building. That building enclosed a large quadrangle of 19th Century barns on the west side of the museum grounds.

Plans were on the table and the money was in the drawer for a replica ice cream shop. However, Michael Spezia changed direction, and with the permission of the family who donated the money, he purchased a restored 1941 Blue Moon Diner structure and set it next to the Carriage House. It opened in 2006 and soon became a visitor gathering place on the campus **(photo 4)**.

Spezia commissioned a replica building of the 19th century Plainwell Paper Mill in nearby Plainwell, Michigan to serve as the Heritage Center. The brick and outdoor lamps duplicate the original structures erected by Donald Gilmore. The Plainwell Mill architecture was replicated with precision from the slanted rooflines to the brick pillars and bricked-in windows. Perhaps some of the architectural details were not necessary, and perhaps much of it is not recognized by many visitors. However, the replication of a historical building, even though it is a paper mill, adds to the vitality and authenticity of the campus and its architecture.

The 1905 Franklin is framed against the rear entrance of the Gilmore Museum's Heritage Center. Note the pillars and two bricked-in windows on the left which replicate the construction details of the 19th Century Mill **(photo 5)**.

Photo 3. The replica Shell Gas Station & 1970 Dodge Challenger.

Photo 4. 1941 Blue Moon Diner.

Spezia also contacted national automobile organizations and invited them to build a museum on campus to create a coalition of museums. John T. Eby of the Lincoln Motor Car Foundation spoke most eloquently of the opportunity in 2012, he said:

The Lincoln people were looking for an opportunity to use vehicles to educate by telling stories . . . After weighing all of the obvious alternatives, we concluded that a free-standing facility on the Gilmore campus represented the best blend of space, presentation and administration. A good business proposition, but most important the similarity of the Lincoln's group vision and the Gilmore vision.

A replica of the 1923 P.J. Platte Lincoln dealership in Detroit—as featured in the January 1926 issue of the *Lincoln Service Bulletin*—was built on a corner site next to Franklin and across from Cadillac-LaSalle. That structure was completed in 2014. The ramp on the right leads to the upper level of the Campania Barn **(photo 6)**. That proximity of rural and urban architecture is repeated in nearby Schoolcraft, Michigan, and other villages in the State.

The Cadillac LaSalle Dealership was completed in 2014. That structure was designed according to the dealership pictured on page 35 in the book *Planning Automobile Dealer Properties* published by General Motors in 1948.

The Franklin agency was dedicated in 2010 and duplicates the 1906 Franklin sales agency on Flower Street in San Franciso, California, which was owned and operated by Ralph Hamlin. Hamlin was an automotive enthusiast, and he threatened H. H. Franklin that he would begin selling another marque unless Franklin got rid of the horse-collar grille, which distinguished the Franklin from almost all other cars between 1920 and 1923. Reluctantly, Franklin agreed, and Hamlin remained with Franklin until the end in 1934 **(photo 7)**. Some historians note that Herbert Franklin stuttered very badly, and famed designer Raymond Dietrich asserted: "I did not understand what he said, but I understood what he wanted." Franklin's speech impediment limited his social life, and he did not make friends easily. As the Great Depression deepened, he had no support group. Historians claim that "he got up from his chair, took his hat off the hook, and walked out the door . . . and never looked back."

The Model A Museum was erected in 2012 across the street from the Franklin Agency and is an adaptation of the dealership described in an issue of the 1928 *Model A Newsletter*. The Model A dealerships were typically small, so the original facade had to be expanded to accommodate the needs of the museum's exhibit hall **(photo 8)**. Finally, an appropriate design for the Museum of the Horseless Carriage is envisioned just west of the Cadillac-LaSalle Dealership.

Nick LaCasse, formally with the Barber Vintage Motorsports Museum in Alabama, was appointed Museum Director in the summer of 2024. He is assisted by Sarah Owens, an experienced curator. Recent facility additions include the expansion of the motorcycle museum building, and other building modifications, which seek

Photo 5. 1905 Franklin.

PHoto 6, Lincoln (left), Cadillac (middle), Campania (right).

Photo 7. Model A (left), Franklin (right).

to create facilities to serve museum member and visitor activities **(photo 9)**. A covered picnic area has been added near the small railroad station where additional restrooms have been installed. A bandstand and awards presentation structure was added. A gathering place with a vintage appearance and access to a large outdoor stone fireplace and patio will soon be completed across from the Shell gas station to serve museum guests and group-sponsored activity.

The Gilmore family used a small room in the silo attached to the large Carriage House barn to entertain their guests. A renovation of that barn was completed in 2024 with a recent donation of a 100-year old bar from a Detroit "public house" which gives the interior a turn-of-the century feel. The Disney *Gnome-Mobile* movie set, and the 1930 Rolls-Royce from that movie released on July 12, 1967, also were added. That the movie was based on an Upton Sinclair novel and featured actor Walter Brennan, who sought to protect the forest gnomes from exploitation. The replica of the 1903 Wright Brothers aircraft—which Donald Gilmore commissioned—hangs from the ceiling and completes the transformation of the interior of the Carriage House from vintage automobile exhibit hall to a gathering place where historical artifacts surround the guests **(photos 10 and 11)**.

The museum's future will be determined by visitors' needs and the evolution of the automobile, which promises to be an interesting ride. The acquisition of vintage automobiles depends on donations and those potential donations are evaluated in terms of five criteria: design, innovation, social impact, exhibit potential, and thematic relevance.

1) "The Design Criterion" refers to note-worthy aspects of the automobile design, such as the Art Deco style.

2) "The Innovation Criterion" typically refers to mechanical advances, such as the V-12 and V-16 engines, as well as four-wheel hydraulic brakes and balloon tires.

3) "The Social Impact Criterion" considers the degree to which a particular automobile is associated with social change. The Model T Ford's role in the Dust Bowl migration is one example and *The Negro Traveler's Green Book*, published prior to 1965, is a second example. The book listed roadside conveniences from gas stations to hotels which welcomed travelers of color **(photo 12)**.

4) "The Exhibit Potential Criterion" refers to the degree to which the particular automobile draws the attention of the visitor.

5) "The Thematic Relevance Criterion" refers to the place of the automobile within the themes of the museum's conceptual organization which are identified as the Eras of Eight.

That conceptual organization of the collection is identified as the "Eras of Eight," and the number eight, which is the only balanced number, is used throughout from 1498 to 2028 as a mnemonic or memory aid. Each era begins and ends with a date containing the number "8", and that conceptual thematic organization is the basis for the judgment of "Exhibit Potential." It asks quite simply,

Photo 8, **Ford Model A Musuem.**

Photo 9. 1929 Rolls-Royce Springfield Phantom (S305LR) Brewster Ascot, on the grounds of the Gilmore.

Photo 10. Replica of the Wright Brothers' first airplane.

how well does a particular automobile reflect the relevant theme of the identified era. In that manner, the collection—organized in terms of the "Eras of Eight"—tells America's story through the automobile. That conceptual organization of automotive history also serves as the general format of the collection. A description of each of the Eras of Eight follows.

Era #1: The Primitive Automobile, 1498-1898. The era begins with Leonardo de Vinci's drawing of a spring-powered cart c. 1498. The date of most of his work is unknown, and the 1498 date was chosen as an approximation which fit into the museum's conceptual organization based on the number eight. Vehicles of this era are scarce, and the museum has only a replica of the 1886 Benz to serve the purpose **(photo 13)**. The Mercedes-Benz company built 50 of these replica automobiles in 1986, and they serve quite well as interactive artifacts. The photo shown is reminiscent of Bertha Benz's ride in 1888 when she drove her children to see their grandmother.

Era #2: Carriages without Horses, 1898-1908. The Museum has 18 vintage automobiles representing this period. All are brass trimmed, and most are clade with all-white tires as is appropriate to the period. Generally, these cars are powered by one or two-

Photo 11. **Barn motor Carriage House & Silo.**

Photo 13. **1886 Benz replica.**

Photo 12. **The** *Green Book* **exhibit.**

cylinder gas engines, steam engines or electric motors. Only two have multiple cylinder engines measuring more than 250-cid; a 1905 Packard and a 1906 Columbia, both of which predict the changes to come in 1908. The 1899 Locomobile is exhibited as it may have appeared upon its arrival in a crate at the railroad station in Kalamazoo, January 24, 1900. The 1902 Thomas has been conserved rather than restored and is one of two 1902 Thomas survivors **(photos 14 and 15)**.

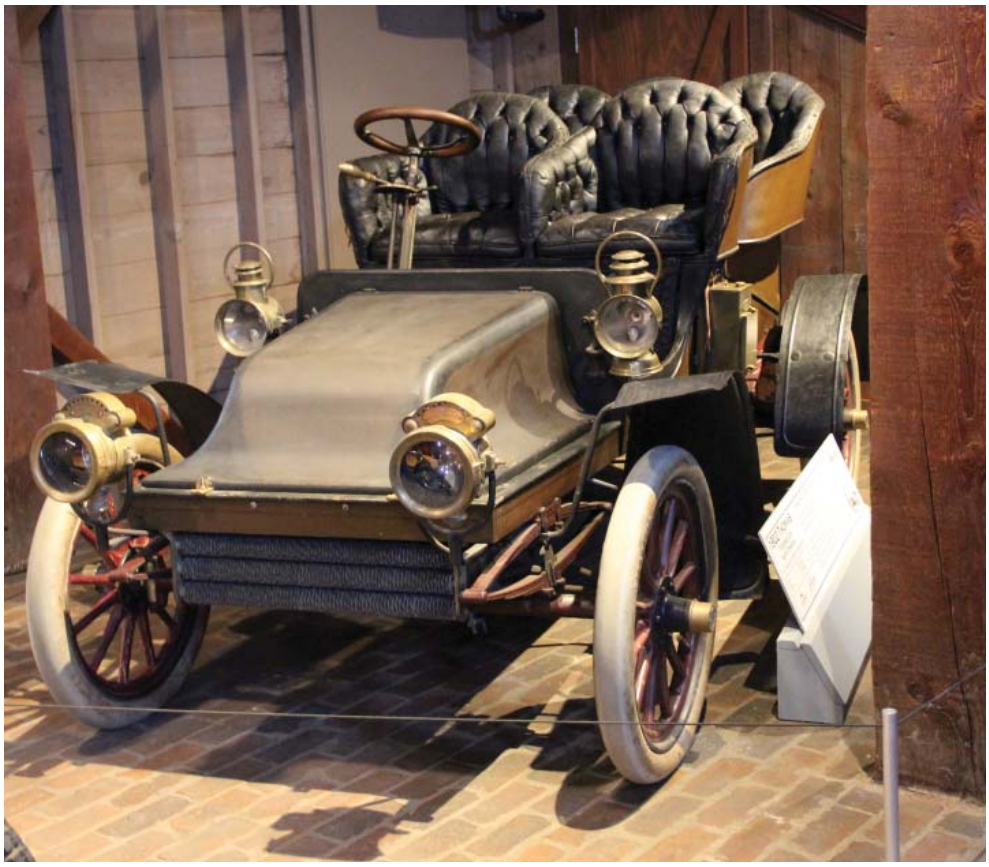


Photo 14. 1902 Thomas conserved.

Photo 15. 1899 Locomobile in a crate.

Era #3: The Passing of the Horse, 1908. The January 4, 1908, issue of *Scientific American* pronounced that the automobile had reached its final form. That theoretical historic moment of the "Passing of the Horse" is celebrated by the Stanley Wanlass sculpture of the same name, which is exhibited in the entrance foyer of the Gilmore Car Museum Heritage Center **(photo 16)**. It is thought to be similar in celebratory function to the Golden Spike, which recognizes the coming together of the Union Pacific and the Central Pacific railroad lines, May 10, 1869, at Promontory Point, Utah. The Passing of the Horse is celebrated as a single theoretical event, which is supported by eight automobile related events in 1908. Those historical events are as follows.

Event #1: Scientific recognition: *The Scientific American* article, January 4, 1908, describes the automobile as having straight-line styling, a six-cylinder engine, a clutch-operated, sliding-gear transmission and water cooling. That pronouncement certified that the car had arrived in its near final form and is one of the eight historic events of the year 1908. The rest of those events are as follows.

Event #2): Birth of America's car: The museum exhibits a 1909 Ford Model T, which is Ford #131, that was built in August 1908. It conquered the notorious obstacles of the American road **(photo 17)**.

Event #3): Superiority on the road: A 1907 Thomas won the New York to Paris Race.

Event #4) Superiority on the track: A 1906 Locomobile won the Vanderbilt Cup.

Event #5: Superiority of manufacture: Cadillac was awarded the Dewar Trophy.

Event #6: Superiority for work: U.S. mail service purchased Oldsmobile trucks for delivery service, testifying to the motorcar as a vehicle of work.

Event #7: Superiority of organization: General Motors Corporation was founded with two separate marques.

Event #8: Transition of design: The impending demise of the "old fashion" high-wheeler design was recognized, and it gradually faded**.**

Era #4: The Renaissance, 1908-1928." The Renaissance is the age of innovation with an electrified car and an electric starter in 1912 for which Cadillac received a second Dewar Trophy. Engines grew from a one-cylinder to a two-cylinder, then to a six-cylinder, a V-8, a V-12 and the V-16 built by the Duesenberg Brothers. That engine is on exhibit at the Auburn Cord Duesenberg Museum in Auburn, Indiana, and testifies to the accomplishment. An overhead cam engine was introduced by the Jackson Company for road and track, c. 1911. The 1915 Locomobile dual cowl phaeton provided much needed back seat comfort for open cars, and a fully enclosed sedan soon followed. Wills Sainte Claire offered four-wheel hydraulic brakes in 1924 and an overhead-cam six-cylinder and V-8 engine in 1925. The first exemplar for the era is the handsome 1917 Packard V-12 Touring car **(photo 18)**.

Photo 16. 1908 Passing of the horse, by Stanley Wanlass.

Photo 17. 1909 Ford Model T.

Photo 18. 1917 Packard V-12.

The second example is the 1928 Nash, sometimes identified as the "Duesenberg from Kenosha" because of its refined construction and finish. The example is a two-door sedan coupe, with a six-cylinder engine, balloon tires, disc wheels, a rear- mounted spare tire, round bar bumpers and four-wheel mechanical brakes. It is the exemplar of the culmination of the Renaissance Period. Only the hydraulic brakes are missing **(photo 19)**.

Era #5: The Art Deco Era, 1928-1948. The stock market crashed in October of 1929, and the Great Depression soon followed. Auto manufacturers hurried to find new products with impressive power and modern styling to attract consumers. The International Exhibition of Modern Decorative and Industrial Arts was held in Paris in 1925. That was the introduction of the Art Deco style. Herbert Hoover, then Secretary of Commerce, prevented artisans from the United States from attending. According to *Ken Gross*, the Art Deco style of the automobile was introduced in America with the sleek L-29 Cord at the New York Automobile Show in December 1928. That car is similar to the L-29 Cord shown here **(photo 20)**.

The museum exhibits several Art Deco automobiles. The exhibit of the 1931 V-16 Marmon illustrates the attempt of the manufacturers to attract consumers of wealth using style and prestigious motive power **(photo 21)**.

Era #6: Space Age Design; 1948-1968. The manufacture of the vehicles for war from 1941 to 1946 interrupted the Art Deco style period. The Jet Age style begins in 1948 after the war with the introduction of the 1948 Tucker automobile, and the subsequent 1954 Chrysler Turbine car. The Tucker car #47 **(photo 22)** and the Chrysler are used as the exemplars. Both reflect the change to Space Age. The first test of a commercial jet aircraft was in 1954 and a substantial number of Space Age programming was offered on commercial television. The theme was expressed in Gogi architecture and the introduction of other designs with space age features, such as the Space Needle in Seattle, the Gateway Arch in St. Louis and the airport terminal in Los Angeles. The muscle car is a part of the same trend with a high-powered engine and aeronautical design as shown in the previous photo of the 1970

Photo 19. 1928 Nash 365 Advanced Victoria Coupe.


Photo 20. 1929 Cord L-29 similar to1928 NY show car.

Photo 21. 1931 V-16 Marmon.

Photo 22. 1948 Tucker, car #47.

Dodge in front of the museum's replica Shell Gas Station. It is also a reminder that the organization of automotive histories presented here are not perfect. The consistency of using the number eight as a mnemonic in the conceptual organization was thought to be most important **(photo 23)**.

Era #7: The Reckoning, 1968-1998. Subsequent to the congressional decisions of 1968, manufacturers were compelled to begin building fuel efficient cars, which had an accident-avoidance system and accident survival systems. The most prominent requirement at first was the seat belt, which Ralph Nader lectured about in his book *Unsafe at Any Speed: The Designed-in Dangers of the American Automobile.* Automobile designs and motive power were reconsidered in order to meet the congressional regulations for gas mileage, accident avoidance, and accident survival.

The Bricklin, the DeLorean and the Fiero's innovative designs, as well as compact cars, and detuned "muscle cars" were in the offing **(photo 24)**. Bill Mitchell, Director of Art & Colour at General Motors, was quite blunt and a bit insensitive when he opined, "Designing a stylish small car is like designing a stylish suit for a midget."

The 1981 Chrysler simulated-wood bodied station wagon also is an exemplar. The side paneling was not conducive to good gas mileage, as demanded by the 1968 federal regulations. The company used this wood trim design, which was introduced in the 1930s, because the consumer had been attracted to the style for decades. Chrysler Corp. was desperate and reintroduced the design to sell cars. The last station wagon was built in 1996 and has not been reintroduced, although some small sedans are occasionally styled with a paint finish of replica wood. Some writers identify this period as the "malaise" because of the limited number of "collectable vehicles." However, that malaise concept is not workable for a museum exhibit intended to attract the attention of visitors and to relate America's story through the automobile **(photo 25)**.

Era #8: The Era of Brutalism, 1998-2028. The Brutalism identification is from descriptions of modern architecture with strong solid walls and dark paint tones. Brutalism identifies the automobile with a strong protruding hood, a streamline body with distinct side sculpture lines, bold air intakes and other bold functional features. The differences in design between various marques is often very subtle, because variations—even in the hubcap design—can lower gas mileage. Most of the passenger vehicles successfully meet the constraints of the 1968 rules set forth by Congress. These very subtle differences in the designs—"they all look alike"—do not make them attractive for future museum exhibits.

Under the 1968 rules, manufacturers are able to build limited production, streamline and very fast automobiles often identified as "Supercars." These cars are most interesting and are reflected in the 2004 Ford GT as well as the 2024 Corvette and to a much lesser extent in current SUVs with bold side sculpture lines and stylish wheel designs.

The exemplar for this period is the 2006 Ford GT that was developed to celebrate the four Ford GT-40 triumphs at Le Mans when Ford defeated Ferraris from 1966 to 1969. The GT-40 gets its name from its 40" height, but the commercial version of the car is a bit taller than that and is identified simply as the GT **(photo 26)**.

PHoto 23. 1963 Chrysler Turbine Car, one of fifty built.

Photo 24. 1982 DeLorean.

Photo 25. 1981 Chrysler Station Wagon.

The Gilmore Car Museum is fortunate to have founding families who had the vision, and the financial wealth and the social position which was necessary to eventually create this 100-acre facility and its mission to "Tell America's story through the automobile." The interest, the idea, and the museum's construction took almost 125 years, starting from William Upjohn's first drive of a Locomobile on the streets of Kalamazoo in January 1900. It culminated in Donald Gilmore's purchase of about 100 acres of rolling farmland and the transfer of his restoration project from a backyard tent to a newly created village-type museum on that land.

As I was working in the gardens near the original museum entrance some 25 years ago, a delivery truck pulled into the gate and stopped at the entrance. The driver stepped out of the truck. He was quiet at first, as he looked about and then mused quite wistfully, "where is this place?" as though he had been transported to a different time and a different world. I knew then that the museum was special. After it opened to the public in 1965, it continued to gain recognition as a place of automotive wonder and education. It is the work of thoughtful leaders, industrious staff, and hardy volunteers.

The museum's history is reflected in a poem—taken from the Berton Braley poem by an unknown person who made the sign—which hung in Henry Ford's small office at the Ford truck factory:

Back of beating hammer by which the steel is wrought
Back of workshops clamor, the seeker may find a thought:
The thought that is ever master of iron and steam and steel;
That rises above disaster and tramples it under heel.
Back of them stands the schemer, –The thinker– who drives things through.
Back of the job the dreamer, who's making the dream come true.

[26] 2004 Ford GT prototype.

Book R&R

For years our "Book Reviews" section has presented full descriptions and reviews in limited space. To cover more ground we've created something we call "Book R&R," where the "R&R" stands for "reviews and recommendations." Reviews will be printed where a review from a historian's perspective is desired. Recommendations means that we'll accept titles our readers submit, along with a pithy recommendation (or supply our own), presented with the same header of information, and a link to a review if one is available.

Total Disaster – Almost: The Auto Union's Car Business after World War II
by Peter Engelhard
epubli (2024)
epubli.com/shop/total-disaster-almost-9783759802026
144 pages, 5.83" x 8.27" paperback
b/w images, charts, graphs, no index
Price: $10.33 (on Amazon.com)
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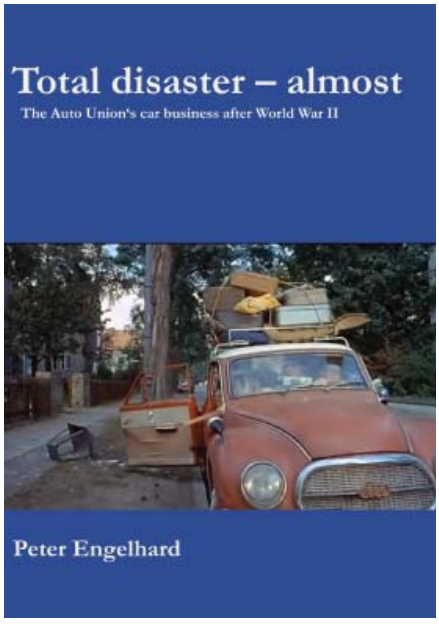

How much of a car company's success or failure is due to any one individual or group of people? Far from a business class musing, this question is top of mind right now for Tesla investors as the company's board considers approving a $46 billion pay package to its CEO, Elon Musk. Looking at the failures of a now largely forgotten automotive German behemoth–Auto Union AG–Peter Engelhard offers to answer the question by holding a company's senior management responsible. These are what he calls the "people, personalities, individuals in the top positions." He calls them the "entrepreneurs." In corporate governance parlance, they might more accurately be called the board of directors and corporate officers.

A brief history lesson on Auto Union AG. Before World War II, the Auto Union was the second largest automaker in Germany, after GM's Opel (another car company likely soon forgotten). The "Union" in the company's name reflects the output of several important mergers of four car companies forged from financial desperation caused by the Depression. They are: (1) Horchwerke AG, named after the famous engineer, August Horch, who left the company bearing his name to form the second member of the four, namely (2) Audi Automobilwerke GmbH. The remaining companies were (3) Zschopauer Motorenwerke J.S. Rasmussen AG, more easily remembered as the producer of DKW (short for "Das kleine Wunder" or "the little wonder"); and (4) Wanderer-Werke AG. To symbolize their union, the Auto Union filed the enduringly famous trademark using four rings, the same ones used today by Audi.

After the merger was completed in 1932, the Auto Union's product range covered almost the entire market. DKW served the lower mid-size car market and was the world's largest builder of motorcycles; Audi and Wanderer served the upper mid-size market; and Horch made high-end luxury vehicles. This breadth of coverage followed Alfred Sloan's "a car for every purse and purpose." In the 1930s these four brands boasted a combined market share exceeding 20%. Of the four brands, DKW was the most important, accounting for over 75% of the group's sales. Wanderer made up the next 20%. Horch and Audi combined for the remaining 5%.

Auto Union was a state-owned corporation headquartered in Saxony (eastern Germany). This legal form allowed the Nazi government as early as 1933 to exercise its influence through the company's supervisory bodies (roughly equivalent to the American board of directors). When the Red Army entered Germany in 1945, Auto Union's management staff, nearly all of whom were active Nazis, fled behind American lines. It was in this new Federal Republic of Germany (West Germany) that they tried to rehabilitate the Auto Union. The war had wiped out three of the four companies: Horch, Wanderer, and Audi. With no manufacturing plants and little disposable income among West German consumers only DKW survived, having to make do initially with making only spare parts.

By the late 1940s DKW had expanded from parts to building a delivery van and motorcycles. The societal *Wirtschaftswunder* (economic miracle) of West Germany in the 1950s didn't lift the Auto Union as much as it should have. The four-stroke engines found in the VW Beetle were in; the pre-war two-stroke engines found in the DKWs were out. Auto Union's management, however, stubbornly clung to their two-strokes despite their known drawbacks: louder noise; more wear and tear; higher emissions and pollutants. As the author notes, "the heyday of [the DKW] small car, in which Auto Union had invested much to penetrate the mass market, was short-lived and the crash was abrupt." Auto Union's management had "lost touch" with market trends; clung to "outdated designs"; and used "outdated production processes." The DKW became a "joke," as depicted, for example, in the post-war German comedy movie "Das kann doch unseren Willi nicht erschüttern" ("That can't shake our Willi") in which the movie's star car, a DKW, can't make the family trip from Germany to Italy due to breakdowns.

Friedrich Flick, an industrial magnate and major investor in the post-war Auto Union, had seen enough failure that he arranged for a takeover of the company in 1958 by Daimler-Benz. Soon after this takeover Volkswagen entered Auto Union, too, through a joint venture with Daimler. The purpose of the JV was to fight off U.S. competition in Germany through GM's Opel. The plan didn't work. By 1964, Audi Union's share of total production dropped to just 2% of the market. And that's how we reach the first part of the book's title: "Total disaster."

Before getting to the second part of the title—"Almost"—a word on the author. Dr. Peter Engelhard is a German economist who has worked as a researcher, consultant, and analyst. As this book demonstrates, he's also an avid automotive historian. The book is broken into nineteen unnumbered chapters that move chronologically in time while also shifting focus from the company's performance to the performance of key top management (individuals) of the Auto Union. Performance is judged using the Heuss-Fehl typology, a method developed by two German economics professors to measure the entrepreneurial competence of managers. Given the ultimate demise of Auto Union, most of the key managers don't fare well under this methodology. Dr. Engelhard takes a decidedly analytical approach to this piece of German automotive history, relying heavily on statistics and economic theory to make his points. His sources are drawn largely from automotive books, journals, magazine articles, and company annual reports. Most of these sources are German. An index would have been a nice feature.

Now to second part of the book's title: "Almost." What saved the Auto Union from complete disaster was Volkswagen. By acquiring a controlling stake in the JV with Daimler-Benz in 1965, Volkswagen used Auto Union's manufacturing plant as "an extended workbench to [build] the Beetle and relieve the [production strain] on VW's [other] plants." The last DKW-branded vehicles were built in 1966. VW eventually merged Auto Union and another German car company, NSU, to form what eventually became today's AUDI AG (the all-caps signifies the corporate name; the brand name is spelled Audi). The DKW brand subsumed by the Audi brand. What's good for the goose is good for the gander, also in German. So, although VW saved Audi, it wasn't even a decade later when Audi was needed to save Volkswagen. By the early 1970s VW found itself with no product to secure its future. The Beetle had run its course. What Volkswagen needed in 1973 was a fresh design and new technology. Both came in the form the new Passat, one of the most modern European family cars of the time that derived its design and technology from … the Audi 80.

—Kevin M. Mc Donald

Texas Legend: Jim Hall and his Chaparrals
"There's always a better way."
The Official Biography
by George Levy
Evro Publishing Limite (2024)
evropublishing.com
484 pages, 8½" x 9½" hardcover
486 b/w and color images, index
Price: £60 ($61.95 on Amazon.com)
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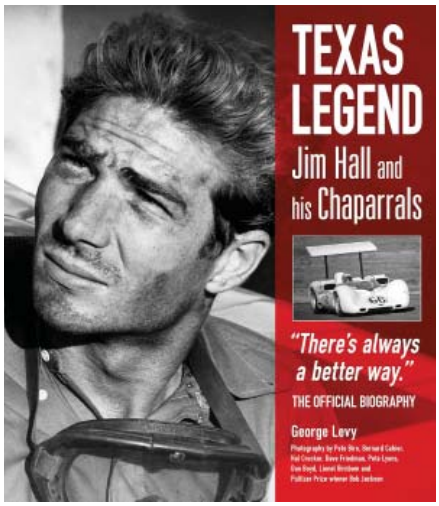

This tantalizing tech tome is as welcome as it is surprisingly unexpected. Why? For decades Jim Hall and his racing pals frustrated and exasperated the media that tried to pin them down for interviews to learn how and why they repeatedly showed up with cars with startling visual differences that often riveted the competition's attention. It was bad enough they were faster, but how they slayed apex after apex with uncommon bravado made some seethingly mad, among them Can-AM Champion John Surtees who loudly called for their brilliance to be banned.

Hall used motorsports events to hone not just his driving skills but also turned racecourses into laboratories and dynamic dynos for his ever-swirling technological theories.

All this (and so much more) gives the reader a triplet reading adventure:
1. *Biographical*. Author Levy got the mysterious Midland man of few words to talk about himself in astonishingly effusive candid detail metered out in such a way that it can and will inspire others to emulate the plus 50-year-old pathway;
2. *Technical*. The detailed technical "confession" is an understandable, unfussy summation of how Hall and his cohorts relentlessly designed, tested and tamed rambunctious racecars with sinewy shapes (including wings) that controlled the invisible power motorsports now calls "downforce." Even newbies now have a solid technical manual to find their way to harnessing their own brand of speed;
3. *Historical*. Levy spent seven years to carefully curate text, pictures and illustrations into a historical order that illuminates dark spots in motorsports history with a clear spotlight on the development of the Chaparral racer. Most helpful are written descriptions supported with exacting visual cues in this "gospel of speed deeds."

Readers are repeatedly rewarded, amused and educated in how American racing evolved and swelled the dreams of generations. Never a "I did it all blowhard," Hall made sure author Levy understood the dynamic contributions of all those he worked with; and what a plentiful posse this "Sheriff of Speed" assembled. Carroll Shelby, Roger Penske, Phil Hill, Hap Sharp, are but a few eyebrow raising people found in the nine-page index.

This reviewer wonders what NASA might have also accomplished had Hall focused on taking things to flight instead of keeping them stuck to the ground. Oh, did I forget to mention the guy is also pilot?

If author Levy and biographical subject Hall had worn togas, this book would be scratched onto papyrus rolls. Readers who come deliberately, or accidentally to absorb said scrolls would equally marvel at what one man's life achieved, inspired in others, and by example, ignited a cataclysmic technical and safety shift that endures throughout motorsports to present day.

Further, please note this is a not a gratuitous "helmet kiss-up" opinion from the reviewer but by those repeatedly sprinkled throughout the 484 pages who were part of the timeline.

For instance,. on December 10, 1967, *Autoweek*, editorial Cobra Daytona designer Peter Brock weighed in on the contentious fight to allow or ban wings saying in part: "I know positively that this sport cannot afford to lose him, or anyone like him."

Pivot points in motorsports history have always been fraught with contention—especially by those who did not think up the new stuff.

Highly regarded by the motorsports crowd today, Hall's secretive "modus ope-

randi" makes the historical chronicle aspects much more shocking as it is wonderfully welcome. In short, the pages explain how motorsports grew up safer, faster and more dependable by snagging the aerodynamics of flight and putting it to lasting, enduring useful work on the ground.

To do this Hall's "test monkey" was his Chaparral, a car that morphed multiple times from a bright mind spark in the early 1960s to the 1980 Indianapolis 500 winner. As a teenager, before he earned his triple Kart Racing Championships (1974, 75, 76) Jim Hall II found himself a crew member of the Hall-Haas Chaparral Indy team where his life shifted unexpectedly thanks to his dad's contemporary, Brian Redman.

Hall the younger told me that "Brian's relaxed, focused competitiveness of pushing only hard as needed to preserve the car," while recalling his covetous team adventure, "yet to often finish first was a wonderful combination. I later heavily based my Jim Hall Kart Racing School on his methods and the imprints made by Carl, Franz, David and Troy."

One significant "aha!" moment occurred on a stretch of abandoned smooth concrete poured long ago to teach some 12,000 pilots how to fly World War II aircraft at Pensacola's Correy Field. Hall, together with many 1950s sports car enthusiasts who took pleasure in the leftie, rightie joys of high-speed fun, won a competition here that provided foundational thinking about the invisible, untapped power of aerodynamics.

A half century later, this reviewer, discovered she lives less than a mile from where he was able to take the theoretical and make it forevermore tactical. Sublime and sumptuous, now each time I pass by the weedy, cracked concrete runways that sparkle anew, I think of Hall with wonder.

Readers will be surprised to learn how Hall's many test miles on his Rattlesnake Raceway and skidpad were critical to exonerate General Motors from damning Federal charges selling its line of Corvairs as unsafe vehicles.

Formula 1's Adrian Newey also bows to Hall's labors where his winged Chaparrals are the oracle of ground effects that makes it possible to "tune" a racecar for optimum performance at ANY racetrack. As a kid, the now famous designer had one of Hall's Chaparral model car kits.

Surprisingly included is a good, long personal look in Hall's family life. This adds dimension and understanding about how he came to be a revered, respected icon, but also the sacrifices made and who paid the lifelong price for his unwavering focus.

Hall's enduring own motto: "We didn't have a public relations department. You don't tell people what you're gonna do. You go out, do something and they write about you." Levy's book backs the sentiment with a 360 degree perspective—if he left something out, I never noticed.

—Louise Ann Noeth

The Formula: How Rogues, Geniuses, and Speed Freaks Reengineered F1 into the World's Fastest-Growing Sport
by Joshua Robinson and Jonathon Clegg
Mariner Books (2024)
harpercollins.com
304 pages, 6" x 9" hardcover
No images
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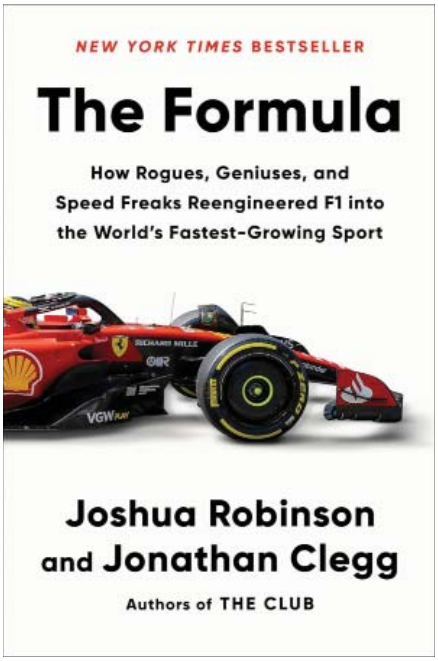


It somehow seems entirely fitting that the sports editor and the European sports correspondent of the *Wall Street Journal* should focus their attention towards the FIA (Fédération Internationale de Automobile) Formula One World Championship (for Drivers and Constructors). After all, the FIA Formula One World Championship series is now owned by an American company, Liberty Media. In addition, there is a reality show on Netflix centered on the series (Drive to Survive), the racing series now has three events held in the United States (Miami, Austin, and Las Vegas), along with it involving millions (as in hundreds of millions, well into the billions range) of dollars. Just the sort of thing to get the attention of those at the *WSJ*, in other words.

While the commercial rights of Formula One (F1) World Championship series might actually belong to the FIA, this only occurred during the 1980-1981 timeframe; and by the way, the series has been farmed out since then to someone else to actually run things. Most notably, for some decades it was a former English motor trade (that is, used car) dealer turned racing team owner (Brabham) by the name of Bernard C. Ecclestone, known to one and all as Bernie. The FIA skimmed its share off the top and Bernie kept most of the rest. Which is where Robinson and Clegg basically take up the story, the appearance of Bernie Ecclestone in the 1970s and his being booted out to pasture some four decades later.

What Robinson and Clegg provide in *The Formula* is the sort of tale that might pass for what an investor would expect to receive when asking a team to conduct due diligence on the sport. This is probably not the sort of book that F1 fans, enthusiasts, aficionados, devotees, and the like will swoon over. The primary reason for this being that *The Formula* spends many pages delving into the sausage-making aspects of the sport: the typically very seriously verboten topics of money and politics (which are essentially the same thing in the F1 world). Nothing much here for the gearheads when it comes to the technical and mechanical stuff (which, in truth, I have long doubted most of them have much of a clue about in the first place, this being the legacy of the English motoring scribes of long-ago who tended to wax eloquent upon compression ratios, gear ratios, bores and strokes, suspensions, and so forth and so on and on, along with their American brethren of course, all the while expressing revulsion and loathing at the very idea of "racing politics"—unless it was some heinous plot by the dreaded Continentals or uncouth Yanks against the Noble Race on the Isle of Greatness, naturally…) and far, far too much politics for the fans and enthusiasts. All that, of course, means that it is well worth the read.

Robinson and Clegg are not historians—sport or automotive or otherwise, but they are very observant sports writers and reporters. While they certainly create what should be considered a very good portrait of F1 since the arrival of Bernie Ecclestone in the 1970s, as mentioned, it should be made clear that Formula 1 Constructors' Association (F1CA), which Ecclestone did (for reasons obvious to some) did get renamed as the Formula ***One*** Constructors' Association (FOCA), was not his creation. The origin of F1CA dates back to early 1964, an outgrowth of an organization of Formula Junior constructors (all British, of course) now involved in Grand Prix or World Championship or F1 racing. F1CA was basically a travel office for teams, handling arrangements for shipping cars overseas and booking flights for team personnel. Along with being a means to haggle with race promoters over starting monies for the F1CA teams. Long before Ecclestone appeared, therefore, the organization was engaged in such things, but nothing like the level of entrepreneurship and forcefulness that Bernie brought to the negotiations. As one might guess, Ferrari was not a member of the F1CA, such things completely beyond the pale for Old Man Ferrari.

Also, contrary to what the FIA and the F1 website says, the FIA F1 World Championship—and F1 itself for that matter—did not magically fall out of the heavens in 1950. This is one part of the story that Robinson and Clegg do not dwell upon very much on *The Formula*, which is fine, since the tale that they do relate is really a matter of the recent years of the sport and its many battles of handbags at dawn, noon, and evening. However, it is a bit of context that historians mull over and often do eyerolls and sighs regarding the way some modern Winston Smith gets his hands on the past.

In the wake of World War II, as the Association Internationale des Automobile Clubs Reconnus (AIACR) was in the process of a name change to the current FIA, its Commission Sportive Internationale (CSI) created a new set of technical specifications for the Formule Internationale, the International Formula, the set of parameters for the engines and related issues such as fuel, vehicle weight, and so forth for major international events. The Formule Internationale dates back to 1922 and in 1938 even the annual 500 mile at the Indianapolis Motor Speedway used the regulations for the event. In 1947, when the CSI added another international formula to the list, the Formule Internationale now became Formule Internationale No. 1, or Formula 1.

Beginning with the 1950 season, the CSI of the FIA inaugurated the Championnat du Monde des Conducteurs, the World Championship for Drivers, composed of the major motor sport events of a number of its members. There was a set of regulations governing the sporting aspects of the championship and there was a separate set of regulations governing the technical aspects of the cars, the "formula" for the engines and mechanical parts. The International Sweepstakes at the Indianapolis Motor Speedway was a part of the world championship from 1950 until 1960, simply because it was the major motor sport event in the United States, AND the world championship sporting regs did not require that cars use engines conforming to the F1 specs until the 1961 season.

Of course, the events held at Indianapolis from 1950 to 1960 are generally ignored as not being "Grand Prix" or "F1" events by the legions of purists and enthusiasts, naturally. Then again, this duality of sporting and technical regs also came into play during the 1952 and 1953 seasons when the race promoters decided to run their world championship events using cars conforming to the Formula 2 specifications. Nothing said that the cars had to be "F1" cars in the world championship sporting regs, so it was no problem on that point.

Back to Bernie Ecclestone, FOCA, and the creation of the current FIA F1 World Championship for a moment and another bit of context. At the end of the Seventies, Ecclestone and FOCA did some headbutting with the new leadership at the FIA, with the latter calling their bluff by announcing in mid-April 1980 that the current world championship, the Championnat du Monde des Conducteurs, that had been around since the 1950 season, would be terminated at the end of the 1980 and replaced with a new championship, Championnat du Monde de Formule Un de la FIA, beginning with the 1981 season. Not to mention that, as mentioned, the FIA now owned the new championship. With the reorganization of the CSI into the Federation Internationale du Sport Automobile (FISA) in 1978 under Jean-Marie Balestre, Bernie Ecclestone now met his match, someone as hard-headed and conniving as he was. It is this point that the sporting and technical regulations were combined for the new championship, which was a major change from the previous ways of doing things. As a result, today's F1 world championship actually dates to the 1981 season, and not to 1950. But, I digress.

The Formula does an excellent job of laying out, sorting out, and generally making it clear just how the F1 world championship evolves into the self-licking ice cream cone that it is today. Few others have managed to do so, unfortunately, generally religiously toeing the "party line" and reading as if it were all written by Winston Smith and the various spineless minions clueless as to just how F1 may have gotten to where it is today. As of this writing, the exclusion of the effort by Andretti Global to field a team on the F1 grid has yet to be mentioned on the F1 website, where a discouraging word or anything of substance would dare make an appearance.

The rather thin historiography of the world championship, both the former and current versions, can certainly use the Robinson-Clegg look at the championship as an addition to those slender offerings. True, it is perhaps lacking much of the historical import and context one might wish for, but it certainly provides an excellent portrait of the recent years of the championship.

The Formula deserves a place on the bookshelf of the serious motor sport historian.

—H. Donald Capps

The *Hidden* Bugatti Diatto Alliance
by Claude Teisen-Simony
Maintain Media AB (Sweden), 2024
170 pages, b/w & color images, hardcover
Price $84.95 / €69
ISBN: 978-9153114109
Explore the captivating and little-known story of The Hidden Bugatti-Diatto Alliance, where history and engineering genius collide.

This title is recommended by the editor. For the review, see: **speedreaders.info/30332-the-hidden-bugatti-diatto-alliance/**
Also, use this QR code with your smartphone (above)

In Memoriam

Liz Eberts
(November 1, 1940 – July 31, 2024)
&
Ken Eberts
(July 4, 1943 – August 14, 2024)

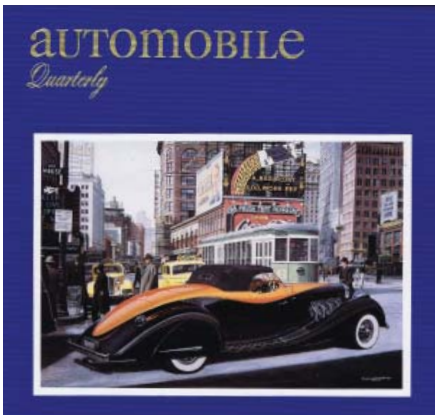
Source: deansgarage.com

Since joining SAH in 1995, Ken and Liz Eberts remained stalwart supporters. They understood the relevance of automotive history with Ken in particular integrating history into virtually every one of his in excess of 3,000 paintings for he wasn't "just" an artist, he was a storyteller at heart and an automotively-focused one at that. Over the years of their lives, this guy from the Bronx and lady from the Ozarks touched the lives of so very many.

As far back as he could remember Ken found automobiles fascinating. Once graduated from New York's High School of Music and Art, he matriculated to Art Center and immediately upon graduation went to work for Ford Styling in Dearborn. As with so many, having gotten a taste of balmier weather, coupled with the rich automotive scene on the West Coast, he'd longed to return. So he jumped at the opportunity to relocate when Lockheed hired him to join the group designing the interior of its L-1011 TriStar. His time at Ford did have one lasting consequence for it was where he'd met Liz, destined to become his lifelong companion. They wed April 1972 and, essentially, were inseparable over the ensuing 52 years even to passing, as you can see, just days apart from one another this past August.

Liz was not just his love but his perfect partner too for when Ken opted to give it five years to see if he could make a living for them creating fine art, mainly focused around the automobile, Liz took on handling the administrative tasks involved with selling, marketing, and fulfillment of purchases of the prints, posters, and holiday greeting cards. In turn that gave Ken more time to devote to his painting. As he would laughingly say later, "Those five years turned into over fifty" during which he conceived, researched and painted over 3,000 pieces of original art featuring cars of historical significance as well as of design excellence and popularity while surrounding each in period and seasonal settings.

Ken and Liz were often referred to as Mr and Mrs AFAS for together they tended many of the business details of the Automotive Fine Arts Society of which Ken was its founder as well as its president for the entire thirty-three years it existed. They were also a popular presence at AACA's Fall Hershey week as Ken created the original art for each year's event poster for over two decades and they would travel to Hershey to sign posters as they visited with friends and fans throughout the entire week. Ken's art was also featured on innumerable covers of AACA's *Antique Automobile* magazine and, from1975 right up to his passing, Ken created new paintings annually for Leanin' Tree and for AACA's holiday greeting cards. That's just the tip of that proverbial iceberg for it doesn't take into account all of the original paintings hanging in personal collections the world around or the myriad prints, posters, and calendars.



AQ **cover for Vol. 30 No. 4, cover caption on p. 3: "COVER: The 1935 Duesenberg SJ Speedster by Gurney-Nutting in "The Maharajah Gives its Regards to Old Broadway," by Ken Eberts." First article in the issue by Randy Ema: "THE MAN BEHIND THE MACHINES Friedrich S. Duesenberg"**

Ken didn't just create story paintings with cars in them. While he loved researching and creating the paintings, when he needed a break he'd repair to the garage to work on one of the cars in their modest collection. Three he'd acquired prior to his marriage to Liz. One was a 1938 Model 41 Special five-passenger four-door trunk back touring sedan. Two others were Studebakers; a 1954 Commander Starliner "touched by Loewy" and a 1963 Gran Turismo Hawk with Brooks Stevens touches. Both were designers whose careers Ken had followed and whose work had earned his respect and admiration. Then too, it was not uncommon to see Liz out on errands behind the wheel of their 1969 Chevrolet Impala or one of the others in their garage.

It is no stretch to describe Ken as the modern day Peter Helck or Norman Rockwell, both of whom he greatly admired. Unless he was purposely painting a single car portrait for something like a calendar entry, every one of Ken's artworks told stories of people, places and times. Ken and Liz were kind, gentle souls always considerate and courteous to others so, no surprise, greatly missed by all.

The Automotive Fine Arts Society and its Legacy

Artists have been including the various modes of mechanical transportation in their artworks since the first came on the scene. If you're unfamiliar with the name or paintings and illustrations created by Peter Helck (1893-1988) do take a moment and explore the website set up by his grandson at **PeterHelck.com**. Then, jump to that last decade of Helck's life. As the 1980s began automotive shows and concours were, with ever-increasing frequency, inviting artists to display auto-themed paintings they had created and were offering for sale. Among the more notable was the Detroit area Meadow Brook Concours held on the stately grounds of Meadow Brook Hall, originally the home of Matilda Dodge (that Dodge) Wilson.

Nineteen-eighty-two found the artists displaying at Meadow Brook discussing amongst one another a "strength in numbers" concept of forming a group. Beyond the core of these like-minded artists, membership in the group would be invitation-only with the idea to make automotive fine art more widely accepted and viewed

as legitimate fine art. The following year the Automotive Fine Arts Society (AFAS) was formalized with "Ken Eberts named Founder of the Society [and designated its president] and Bob Larivee [Robert E Larivee Sr] its Founding Patron." Eberts and Larivee were destined to fill their respective roles for the next 33 years.

In 1986 AFAS secured a presence on the Pebble Beach Concours showfield where, for the next thirty-two years, annually it would fill its large tent with a stunning display of automotive fine art. AFAS members also traveled to shows and events to display and sell including all the way to the right coast's Amelia Island Concours.

The Society published a *Journal* beginning in 1987 as a quarterly but by issue #23 (they were numbered sequentially with the exception of the Premier issue which bore no number) it had switched to becoming an annual renamed *AFAS Magazine.* By issue #35 the costs of producing and distributing a print magazine had risen to a prohibitive point. Thus the 2009 issue #35 was the last printed issue. The gauntlet was taken up by one of the AFAS member artists, Canadian Jay Koka who, in 2010, began an on-line newsletter that can be found at AutoArtReview.com The trouble is he's now pulled his earlier issues so they can no longer be seen much less used as a resource documenting automotive art history or that of any individual artist.

Today, to visit the world's largest automotive art gallery you do not need to board a flight and travel. Just key CarArt.us into your device at any time. This online gallery will give you the opportunity to view more than 1,500 artworks with subjects showing 130 different marques. They cover a full range of types of art from original paintings to prints, posters and sculptures created by 70 fine artists** and designers from 20 countries on four continents.

Car Art, Inc was established in 2002 by Peter Aylett, himself a former automotive design engineer. He professionally and smoothly handles purchases that are then shipped directly to your door. He is also available to guide and facilitate the commissioning of a desired personalized painting created by many of CarArt's represented artists.

These days, artists still display their offerings at shows everywhere. But just as Bring A Trailer changed how to list in order to show you're the collector car you are offering for sale to the widest audience possible, so too has how you now more easily discover the offerings of your favorite artist or learn of other talented, capable artists and their creations—one of whom has indeed been Ken Eberts.

—Helen V Hutchings

James J. Schild
1947-2024

Source: republictimes.net

Long-time SAH member (#950) Jim Schild, of Columbia, Illinois, died June 14, 2024. A retired Lieutenant Colonel, U.S. Army, 1st Cavalry Division, he was a Viet Nam veteran.

James J. Schild was born March 26, 1947, in St. Louis, Missouri, the son of Joseph and Marcella Bonzon Schild. He was married to Myrna Smith Martin, whom he met at a national meeting of the Imperial Dance Club of St. Louis. A non-stop entrepreneur, he has owned three businesses, Schild Photography, Antique Classics and *The Auto Review*, the latter published for forty years. He authored 30 books on historical topics, including Model A Fords, Mopar Racing and a collector car guide.

Jim joined the Society in January 1983, member number 950. He served on the Board of Directors and was vice-president in 1998, at which time he hosted the spring Directors' meeting in St. Louis. In addition to taking care of Society business, the fellow directors and guests were treated to an automotive afternoon, touring the Hunter automobile restoration facility and car collection. An automotive archeological tour of St. Louis viewed the remnants of local automakers, among them Jim's favorites: Dorris, Moon, Gardner and Diana. The day ended with a visit to the renowned *Fred Guyton* collection.

In addition to SAH, Jim was active in the Classic Car Club of America, the Auburn-Cord-Duesenberg Club, Packard and Rolls-Royce organizations, as well as the Model T and Model A Ford communities. He and Myrna devoted countless hours to the car clubs of St. Louis and beyond.

Jim is survived his wife Myrna, a daughter, Lisa Rodgers, two granddaughters, and two great-grandchildren.

—Kit Foster

John Montville
1932-2024

John Montville (left) & Walt Gosden (right) at the November 1979 meeting of the Pioneer Chapter of the SAH on Long Island. Source: *SAHJ* #67 (Mar/Apr 1980).

John Montville was a friend since the day I met him in the late 1960s. His enthusiasm for any and all commercial vehicles was infectious. He apparently had this enthusiasm from a young age as he worked for Austin Clark when he was in his 20s in the early 1950s. Austin saved three Mack truck archives of glass plate negatives (47 steel 4 draw filing cabinets) from destruction when Mack relocated from Brooklyn, NY to Allentown, Pa. and the negatives were to be trashed. John was involved in this and later spent countless hours looking at the negatives and saw prints made when

he was researching to write his books on Mack history.

I got to know John well and he was essential when the Pioneer Chapter of SAH was formed, and meetings held at my house due to being close to major roadways to get members from the metro area and beyond.

John and I would look out for each other for period (pre WWII) original literature and trade each other items of our particular interest. He didn't live too far away (me on western long island and John in the Bronx) . He would drive to my house to visit and spend the day the same way he would do to visit Austin who lived about 12 miles NE of me. All this in an era when communication by letters mailed or phone. "photocopies" were the new innovation (those images faded reasonably fast if exposed to light).

John was always open to sharing his knowledge with fellow historians, he was very enthused about SAH. I had not been in contact with John for about 5 years as we both aged and had to cope with health issues, but neither of us lost our enthusiasm for vehicle history nor those who were there when that history was happening. We also both looked at Austin Clark as the one person who not only saved real vehicles but was so vital to the survival of the paper, photographs and periodicals of those same vehicles.

It was an honor to have John Montville as a friend, he was a scholar but like me thought the subject was the most important of all and worth whatever it took to preserve and save it.

Godspeed my friend, I am a better person because of you.

—Walt Gosden

Maurice Hendry
1930-2024

Maurice Dominic Hendry of New Zealand passed peacefully on May 10, 2024, at 94 years of age. He is survived by his children Ian and Alison, and grandchildren Daniel and Callan. He received an Award of Distinction for his article "Cord and his Auburns" published in Cars and Parts. (*SAHJ* #105, Nov/Dec 1986). In 2004 he was awarded SAH's highest award: Friend of Automotive History. He was member 222 and served as SAH vice president in 1976, first appearing on the member list in *SAHJ* #41.

Maurice Hendry proudly displays his SAH Friend of Automotive History Award. *photo: Yann Saunders*

Source: *SAHJ* **#216 (May/Jun 2005)**

The books he authored included these titles:

Lincoln Ballantine's illustrated history of the car: marque book (1971)

Pierce-Arrow: First Among America's Finest Ballantine's Illustrated History of the Car: Marque Book no. 4 (1971)

Harley Davidson Ballantine's illustrated history of the car: marque book no. 12 (1972)

Cadillac: Standard of the World: The complete seventy-year history An Automobile quarterly library series book (1973)

Cadillac: Standard Of The World (1984)

Cadillac: Standard of the World: The Complete History (1996)

Cadillac at 100: Legacy of Leadership 1902 - 2006, Volumes 1 & 2 (2008)

He was a contributor to *Automobile Quarterly*, which included these titles:

"Childe Harold Wills: A Career in Cars"
Vol. V, No. 2 (Fall 1966)

"The Steam Odyssey of Abner Doble"
Vol. VIII, No. 1 (Summer 1969)

"Thomas!"
Vol. VIII, No. 4 (Summer 1970)

"The Peerless Story"
Vol. XI, No. 1 (First Quarter 1973)

"The Thirty and General Motors"
(Excerpted from *Cadillac: Standard of the World*)
Vol. 47, No. 2 (Second Quarter 2007)

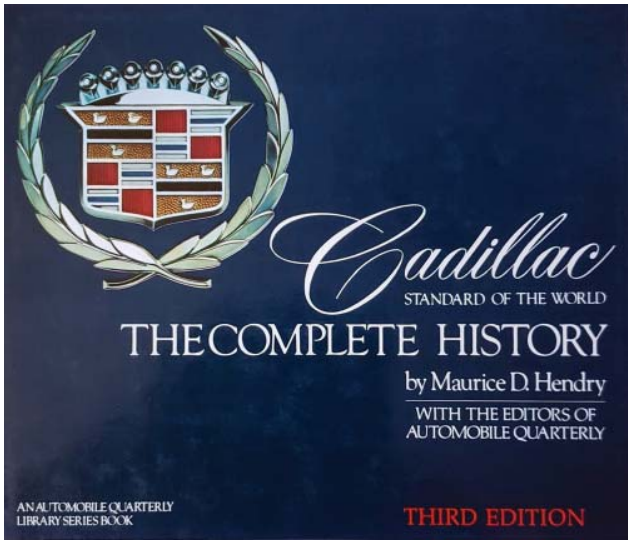
In that first *AQ* issue in 1966, he was first on the list of "Contributors"—and this is what they wrote about him:

"Although he hails from New Zealand, M.D. HENDRY has had a lifelong interest in American automobiles and has written numerous magazine articles on Packard, Cadillac, Stutz, Pierce Arrow, Chrysler, Lincoln, Auburn, Franklin, Doble and Marmon, as well as biographies of the men who built them. A devoted classic enthusiast. Hendry has owned both Cadillacs and Pierce-Arrows and has driven almost all the marques about which he has written. His present classic is a 1934 twelve-cylinder Pierce-Arrow, one of only two in New Zealand. A draftsman in the Engineering Branch of the New Zealand Post and Telegraph Department, Hendry is a member of the New Zealand Institute of Draughtsmen, whose official seal he designed. His automotive affiliations include the Pierce-Arrow Society, Classic Car Club of America and Vintage Car Club of New Zealand."

The narrative of his Friend of Automotive History award in *SAHJ* #213 (Nov/Dec 2004) includes this statement of his interests:

"When asked to explain his interest in writing about American cars, Mr. Hendry replied, 'Back in the early fifties, Americans were not well served by their automotive writers, and Americans didn't fully appreciate the greatness of their automobiles. Years ago I took it upon myself to write about them, and doing so has proved to be one of the most pleasant and satisfying missions I have ever had.'"

—R. Verdés



This title had earlier editions (this one is from my library).