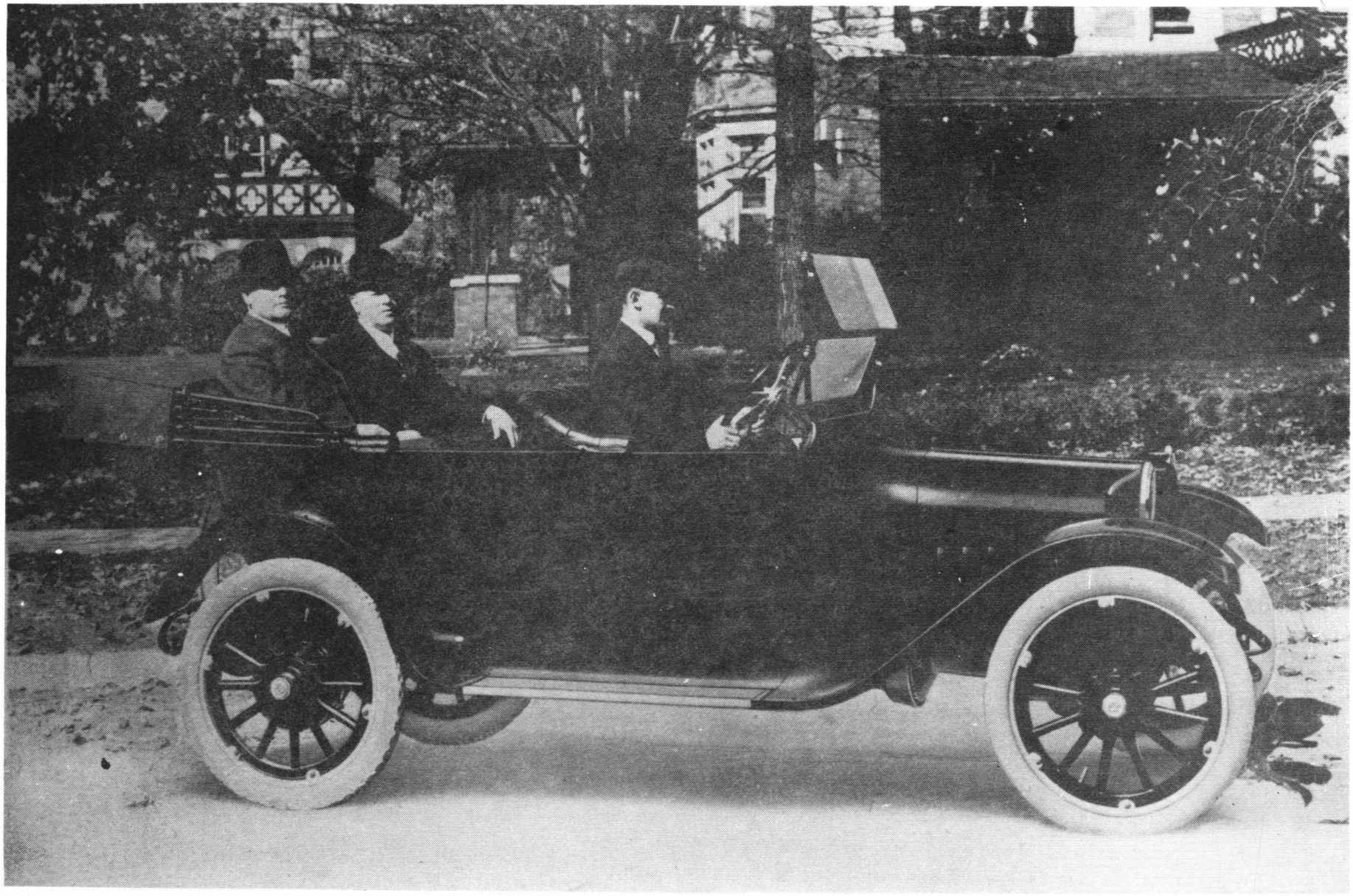
AUTOMOTIVE HISTORY *Review*

FALL, 1977 ISSUE NO.7

RANSOM ELI OLDS, 1864 - 1950

The Society of Automotive Historians



AUTOMOTIVE HISTORY Review

A PUBLICATION OF THE SOCIETY OF AUTOMOTIVE HISTORIANS

RICHARD B. BRIGHAM, EDITOR

CONTENTS

AUTOMOTIVE HISTORY REVIEW is printed by BRIGHAM PRESS, Marietta, Georgia. Address all correspondence to the SOCIETY OF AUTOMOTIVE HISTORIANS, P. O. BOX 1306, MARIETTA, GA. 30061.

THE COVERS —

FRONT - Ransom E. Olds, pioneer automobile maker.

BACK - Packard advertisement, 1914, enlarged from National Geographic Magazine.

INSIDE FRONT - The first DODGE automobile. Horace Dodge (left rear) and John Dodge (right rear) take delivery on November 14, 1914. This photo is from the Dodge Public Relations Department and was contributed by Harry Pulfer.

INSIDE BACK - 1928 Stearns-Knight. Photo contributed by Harry Pulfer.

EDITORIAL COMMENT

CONTRIBUTIONS - OUR RECORD IS GOOD

In the *Viewpoint* column of this issue is a letter pointing out that most of the material in Automotive History Review and the SAH Newsletter is contributed by only a small percentage of our membership, whose names appear over and over again as the authors of articles, letters and small items printed in the Society's publications. To a certain extent this is true, but it is not a situation of major importance, for this problem - if it really is a problem - is common to all publications which depend upon unsolicited and uncompensated contributions from their readers.

Everything in this magazine and also in the Newsletter has been contributed by the membership, including a few pearls of wisdom tossed in by the editors, who are also members. These contributors, on their own time and with no compensation, do the necessary research and supply nearly all of their own illustrations. Without them there would be no magazine, no Newsletter - and no Society of Automotive Historians.

In the six issues of Automotive History Review published prior to this one, 87 contributions from 46 different contributors have been published. This includes articles, letters, and filler items. It does not include editorials or articles written by the editor.

In addition to articles published, we have many more as yet unpublished and filed under "Future Issues". Most of these are waiting for your editor to round up supplementary information or suitable pictures, and it is intended that all will one day appear in print.

The above figures indicate that about 15% of our membership have offered contributions to this publication, which we feel is a high figure - especially in view of the fact that this represents only six issues.

However, we'd like to hear from the other 85%. The Society of Automotive Historians was founded as a sort of clearing house for information, where a letter or article from one member would be shared with all the rest, to the mutual advantage of each of us. Short items are as welcome as long ones. Letters to *Viewpoint* make interesting reading and can be a valuable source of information. When you send in such a letter you are actually writing to several hundred people, and many of them will reply. Try it. You'll like it!

AND, SPEAKING OF CONTRIBUTIONS -

Throughout its comparatively brief and irregular existence, this publication has pictured on the cover of each issue some person connected with the history of the automotive industry. This has been a general policy, but is not necessarily a fixed rule, although it would seem desirable to adhere as closely as practicable to such a pattern. Now, however, we have learned that pictures of automobiles (as used by just about all old-car publications) are much easier to come by than the pictures of the people who made them.

The problem is not really a shortage of pictures, but of the scarcity of photographs or drawings of high quality. Very small pictures which have been previously printed usually make poor enlargements. Xerox, or similar copies, are generally unusable. Any good photo or drawing (unscreened) 2½ x 3½ inches or larger, or a picture 5 x 7 inches or larger (screened or unscreened) will be most welcome. We need pictures of the people who played any part - large or small - in the history of the automotive industry.

CORRECTION -

On the *Viewpoint* page of the last issue we pictured an early automobile designed and built by J. Philip Erie of Los Angeles in 1897. In our comments we stated that this car was an electric, an opinion based upon references which have been in our files for years. Recently, however, several additional references have turned up, some of which say "electric" and others say "gasoline". Now, just as we are about to go to press with this issue, proof positive has been received from member J.H. Valentine, Culver City, California, who has sent a reproduction of a page from the Los Angeles Times of May 31, 1897, which includes drawings of the car and its chassis plus a detailed description of its construction. The fact that the car was powered by an internal combustion engine is clearly established, as is the date of 1897. This newspaper article will be reproduced in its entirety in the next issue of Automotive History Review.

AND ANOTHER CORRECTION -

It has been called to our attention that we made a typographical error in the article on the Cleburne Motor Car Company (AHR No. 6). On page 10 the date of the company's incorporation was incorrectly stated as September 24, 1924, instead of September 24, 1912.

VIEWPOINT
COMMENTS OF OUR READERS

OLIVER EVANS (Issue No. 6); Other Pioneers
Fred Hayward, Paramount, California

Your latest issue is at hand. I have surely enjoyed the feature on Oliver Evans, a remarkable man we cannot study too thoroughly. As editor of the Horseless Carriage Club *Gazette* I have, over the years, run occasional items on him, and every new facet of his work continues to enthrall me.

Another item in this issue, and what really impels me to write to you, is the *Scientific American* reprint on page 27. Many years ago I wondered why no remains of these pioneer British machines seem to have been preserved, for they were well documented in their time and later. Ransom Matthews, longtime Curator of Mechanical Sciences at the Los Angeles County Museum (now deceased, alas), speculated that as they were built by men of modest means, or at least by men acting with the intent of making money, and it is likely that they used up the mechanical pieces in later devices they constructed. That may be; I suppose no one really knows.

However, in — I believe it was — the spring of 1966 I visited the just-forming City Transport Museum in Glasgow, and there in an alleyway was a collection of machinery which, I was told, some people thought must be the remains of one of these early machines. It had been found along the correct roadway outside Glasgow, seemed to fit the design (as near as one can tell from an era before photography), and appeared to be constructed with methods of the correct period.

Since then, I have neither heard nor read anything of this. If the machinery is indeed a part of one of the important early pioneers it ought to be set down for all to know. Perhaps correspondence with the Glasgow Corporation Transport Museum would bring us some facts, or perhaps one of your British members could pin it down by spending some time in the location and among the literary sources. I'm sorry to have no more of a clue than this, but hope you will pass it along to anyone you think might pursue this bare suggestion of what might be a really important research project.

Again I appreciate your crediting the *Gazette* for Dick Philippi's old article, per the editorial on page 2 of this issue. Needless to say, I surely agree with your comments on setting down history from whatever source.

MYSTERY PICTURE No. 3 (Issue No. 6)
Michael Sedgwick, Midhurst, Sussex, England

Mystery picture No. 3 of the R. J. Sagall collection is surely an Autocar Type XXI truck of World War I vintage. The wheels look correct, pneumatics were available (and used on examples exported to U. K.) and the front bumper formation is characteristic.

MYSTERY VEHICLES; CONTRIBUTIONS (Issue #6)
John M. Peckham, Troy, New York

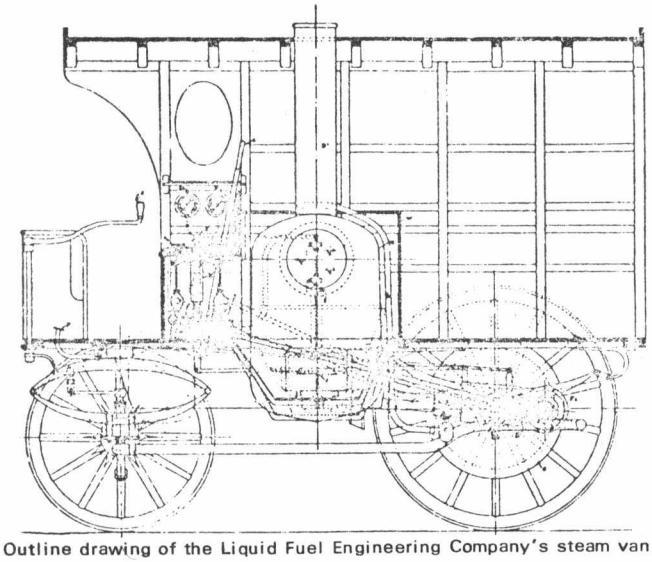
The magazines arrived, and they look fine. Many thanks. If it weren't for a few folks, we wouldn't have much material for the *Review* and the *Newsletter*. I wish we could induce a few more members to contribute.

In regard to the Mystery Vehicles on pages 42 & 43, I think I can help on some of them.

The Royal Mail wagon is indeed a Lifu. The enclosed Xerox leaves little doubt about it. The illustration is from Ronald H. Clark's, *The Development of the English Steam Wagon*, Norwich, Goose & Son Ltd., 1963. It was built by the Liquid Fuel Engineering Co. Ltd., of East Cowes in England.

On page 43, photo number one looks suspiciously like a Plymouth, but there are some details that don't match and I really wouldn't want to peg it as such. However, I have no fear of attaching a name to the ambulance in photo number three. It is an Autocar. I have never seen pictures of one as long as that, but other details of the dash, shape of the dash side-panels and the underslung radiator with a strip down the middle, leaves little question that its origins were in Ardmore, Pa.

Ed. comment: Automotive History Review *has received some material from contributors which has not yet been used. Of course we need much more in order to put out full issues containing important and interesting articles.*



Outline drawing of the Liquid Fuel Engineering Company's steam van.

IDENTIFICATION of PICTURE No. 4 (Issue No. 6)
Bruce R. Ledingham, Vancouver, Canada

Re: Picture No. 4, page 43. It would appear that this car is a 1913-14 EMPIRE, model 31. Hubcaps are similar to the picture of model 31 Empire shown in the *Encyclopedia of Motorcars*, page 206.

I have a large collection of screw-on type Hubcaps, and enclosed is a Xerox copy of the Empire 31 hubcap. Empire was one of the few manufacturers that cast the model number on their hubcaps. Also, I have the same design

hubcap with numbers "33" and "40". They are of heavy cast aluminum.

Your fine book *Serial Numbers of the First Fifty Years* on page 33 indicates that the model 31 was manufactured during 1913-14.

PRODUCTION FIGURES (Issue No. 6)
Richard M. Langworth, Hopewell, New Jersey

I don't understand what Fred Roe means (*AHR* Spring '77, p. 3) when he says the production figures by Jim Bradley and myself in *The American Car Since 1775* fail to state "whether model year or production year is the basis."

I assume by "production year" Fred means calendar year — and the "1775" figures clearly state, "Calendar Year Production, 1896-date."

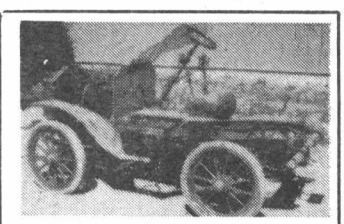
In compiling these figures Jim Bradley handled all the pre-World War II material while I merely did the postwar. So I'm calling Jim's attention to Fred's question.

KRASTIN SURVIVOR - 1898 or 1902-03?
Grace Brigham, Marietta, Georgia

In one of the Kruse Auctions - that held in Auburn, Indiana, September 4-6, 1976 - Car No. 301 was an 1898 Krastin Chassis. The description in Kruse's folder stated that it was made in Cleveland and "only one known to exist."

Dates given for the Krastin in *The American Car Since 1775* are 1902-03. Manufacturers were listed as: August Krastin; Krastin Automobile Mfg. Co.; and Krastin Automobile Co. Would the surviving chassis be Krastin's first model? A small illustration in the folder shows a chassis too advanced for an 1898 car.

In fact it might fit the description of the Krastin in the Georgano *Encyclopedia of Motorcars*. A "tonneau touring wagon" was built by the company, and "the body could be converted from passenger to goods carrying."



Car No. 301
1898 KRASTIN CHASSIS — built in Cleveland, only one known to exist

Here is the Krastin item as clipped from a Kruse Auction advertising mailing piece. The 1898 date seems highly questionable.

OLIVER EVANS; Also IDENTIFICATION (Issue #6)
Richard Sagall, Toledo, Ohio

I was very pleased to receive *AHR* #6 a week or so ago. I must tell you that I believe it to be the best so far.

I must admit I was a little disappointed at first when I saw an article on Oliver Evans. Every auto history book has the same old stuff on him. But I was very pleasantly surprised to read the article, and the hypothesized picture of his vehicle. The article was extremely well written and of the greatest interest.

Also I was pleased to see some of my postcards in this issue. I have already received a letter from one member who has identified some of the cards.

The letter, from Robert B. Myers, Mattapan, Massachusetts, stated he believes that #4 is a 1913 Empire, #6 a 1907 Buick Model F and #7 a 1909 Rambler Model 41.

MORE IDENTIFICATION (Issue No. 6)
Ralph Dunwoodie, Sun Valley, Nevada

Of the seven cars to be identified (sent by Richard Sagall) -

No. 3 is a c. 1921 Autocar

No. 4 is a 1913 Model 31 Empire

No. 6 is a 1908 Model F Buick.

A couple of others look familiar, but have not taken the time to look them up. The above three should be verified, but I don't believe they'll need it.
EDITOR'S NOTE: To judge by the returns so far, as indicated by the letters on these pages, no verification is needed.

- - - AND STILL MORE IDENTIFICATION
Richard Brigham, Marietta, Georgia

Car No.5 is clearly a Model L Cartercar, of 1910. It seems to compare exactly to a small picture in the March, 1910, issue of Cycle and Automobile Trade Journal.

Member Stanley W. Liszka, Jr., in an article entitled "A Follow-Up on the Fey" (issue No. 6, page 26) recommends an excellent article by Alan Ominsky called "A Catalog of Minnesota-made Cars and Trucks" which was published in the Fall, 1972, issue of *Minnesota History*. Mr. Ominsky lists 48 makes which were once built or assembled in the state, plus a list of others which may have been made there, giving a short history of each make including background information about some of the men who designed and built these cars. This article is recommended as a valuable addition to the reference library of any auto historian. Copies of the magazine are still available for $1.75 plus 50¢ for postage and handling. Order issue H-43-3 from the Minnesota Historical Society, 1500 Mississippi Street, St. Paul, Minnesota 55101.

THE COVER PICTURE

RANSOM E. OLDS

by Richard Brigham

Ransom Eli Olds was born at Geneva, Ohio, in 1864 and grew up in Lansing, Michigan, where his father, Pliny Olds, ran a machine shop. Here young Olds worked after school and on Saturday for nothing more than the valuable experience he was accumulating. After two years he was paid fifty cents a day during summer vacations, and by the time he finished high school he was a good machinist and pattern maker. At the age of 21 he was able to buy a half interest in his father's shop for $300 down and a note for $800 more which he paid with 8% interest. Five years later he became sole owner.

In 1887 he completed his first self-propelled vehicle, a three-wheeled steam car. Next he built a four-wheeled machine using a flash boiler of his own design. Experimental work with internal combustion engines was begun, and in the early 1890's the Olds Machine Shop became the Olds Gasoline Engine Works, which produced engines in several sizes up to 18 H.P. This led to experimentation with gasoline powered cars and the incorporation, in 1897, of the Olds Motor Vehicle Company.

Inadequate financing caused the failure of this venture, but two years later, backed by a wealthy Michigan citizen, Samuel L. Smith, the Olds Motor Works was established in Detroit. The new company continued the manufacture of gasoline engines, but also produced a few prototype motor vehicles, including an electric model. This experimental work was done at a substantial financial loss, but one model, a single cylinder buggy, put the company on the road to success accidentally.

In March of 1901 the Olds factory burned down. Just one car, the single cylinder buggy, was saved. New drawings were made from the parts of this survivor and the company put all of its efforts into the production of what was to become the "Merry Oldsmobile" Runabout.

Manufacturing was resumed at a new plant in Lansing, built with the valuable help of the Lansing Businessmen's Association. This organization raised $4800 to buy a 52-acre site for the new plant. Beginning with an output of 600 cars in the remaining months of 1901, production and sales increased each year, reaching 5000 cars in 1904.

Now, although the little curved-dash Oldsmobile had become an unqualified success, Olds' backers wanted to turn to heavier, more expensive models. Olds disagreed, but Samuel Smith and his son, Frederick, were the major stockholders who made the final decisions. Olds left the company.

However, the Olds reputation was such that a group of Lansing businessmen established the Reo Motor Car Company in 1904, with R. E. Olds as president. The first Reo products were one and two cylinder cars, built until 1910. Larger four-cylinder models were added to the line in 1909. Six-cylinder Reos superceded the fours in 1920, and both sixes and straight eights were made in the 1930's.

The manufacture of Reo passenger cars ended in 1936, but truck production, which began in 1908, was continued. The White Motor Company acquired Reo Motors in 1956 and later merged it with Diamond-T, another White acquisition. Now called Diamond-Reo, trucks were built until early 1977, when the Reo name finally disappeared from the automotive scene.

The Oldsmobile, along with Buick, formed the nucleus of the General Motors Company, and is today the oldest surviving make in the American passenger auto industry. But the contribution of R. E. Olds to that industry was more than the founding of two famous companies, one of which bore his name; the other one, his initials. Roy D. Chapin and Howard E. Coffin, of the Hudson Motor Car Company; Robert C. Hupp, founder of Hupmobile, R.C.H., and Hupp-Yeats Electric; and Jonathan D. Maxwell, who, along with Frank Briscoe, founded the Maxwell-Briscoe Motor Company, all entered the automobile industry by way of the Olds Motor Works. Maxwell-Briscoe eventually became the Maxwell Motor Corporation, and as such was the direct ancestor of the present Chrysler organization.

The roots of the present-day American automobile industry go deep.

AN EARLY EXPERIMENTAL MODEL - This car was one of several prototype vehicles built in 1897 by the Olds Motor Vehicle Company, predecessor of the Olds Motor Works. The name of the car - if it had one - was probably OLDS, as the name OLDSMOBILE was not used until three years later.

The Post-War Automobiles and the Future - A Quantitative Look

by G. Marshall Naul

A new perspective of the past and the future of the automotive industry in the U.S. and the other major producing countries would be in order to round out the excellent review of Post-WW II automobiles by Perry Zavitz. This new approach can be termed "analysis by makes or marques" and deals with the newly introduced makes in a quantitative manner. This analysis will include information on the year in which each new make was announced as well as the number of years that each make managed to survive.

For this purpose, dates have been established for all U.S. automobiles listed as beginning in 1945 or later as given in G.N.Georgano's *Complete Encyclopedia of Motorcars,* 2nd edition. Certain arbitrary rules have been applied to the makes so listed:

(1) Only passenger automobiles have been used. Strictly racing and kit cars have been excluded.

(2) Dates given as "ca." have been read as exact, that is, "ca. 1947" has been accepted as "1947". This is necessary as there are no mathematical rules for dealing with "ca. 1947". Some bias must necessarily result from this, but it is expected that a large number of such figures would be self-compensating, and will have little effect upon the final results.

For this analysis, it is necessary to arrange these dates in chronological order, year by year. The year in which each make ceased to exist is also recorded. For many of these makes, the latter year is difficult to determine. Also included is a cumulative total for each year which reflects the total number of makes introduced from 1945 through the year given. These data are given in Table I.

TABLE I - U.S. PASSENGER CAR MAKES INTRODUCED AND WITHDRAWN, 1945-1972

Year	Number of Makes Introduced	Cumulative Number Introduced	Number of Makes Withdrawn	Cumulative Number Withdrawn	Net Change	Cumulative Net Change
1945	1	1	0	0	1	1
1946	12	13	5	5	7	8
1947	4	17	2	7	2	10
1948	7	24	7	14	0	10
1949	8	32	7	21	1	11
1950	4	36	4	25	0	11
1951	1	37	3	28	-2	9
1952	7	44	3	31	5	13
1953	5	49	3	34	2	15
1954	8	57	8	42	0	15
1955	9	66	10	52	-1	14
1956	2	68	7	59	-5	9
1957	3	71	4	63	-1	8
1958	10	81	7	70	3	11
1959	7	88	7	77	0	11
1960	3	91	5	82	-2	9
1961	2	93	4	86	-2	7
1962	6	99	1	87	5	12
1963	2	101	3	90	-1	11
1964	4	105	4	94	0	11
1965	2	107	0	94	2	13
1966	5	112	2	96	3	16
1967	2	114	2	98	0	16
1968	2	116	1	99	1	17
1969	3	119	2	101	1	18
1970	1	120	3	104	-2	16
1971	4	124	0	104	4	20
1972	3	127	0	104	3	23

From the information in Table I it may readily be seen that the number of new makes which have been introduced each year has varied considerably, from a high of 12 in 1946 to only one each in 1945, 1951 and 1970. The number of new makes for each year show no particular pattern. However, if the cumulative number of new makes is plotted on a graph for the years 1945 through 1972, it can be seen in Graph I that the points for the years tend to fall on or near two distinctly different straight lines. The slope (or slant) of these lines is equal to the average number of new makes which were introduced during the years under consideration.

The "break" or distinct change in these slopes occurred at the year 1960. From 1945 to 1959, the average number of new makes which "got off the line" was 6.0 per year. After 1960 this value has dropped substantially to an average of 2.8 new makes or marques for each year. Such a discontinuity in the trend lines is quite unexpected and it might be expected that Graph I would show a curve rather than the actual two lines. The reason for this large and distinct change is not apparent, but possibly would be evident to an economist. It is most likely that the year 1960 marked the end of the Post-WW II era of general expansion.

This "break" in the plotted data is neither unique nor unexpected as a similar change occurred in the early 1920's. This will be taken up in the second installment of this article.

The rate at which new makes of passenger cars became defunct is nearly as great as the rate at which they were introduced or brought out, and since 1945 certainly fewer than half of all new makes were still around after three model-years. A plot can be made of the number of such makes which were dropped each year, and it would closely follow the line of introductions shown in Graph I. However, the net gain of new makes as given in the last column of Table I is obviously misleading, as the gain of 23 new makes still in existence is unreasonable. The publicity for a make which is "folding" is generally much less than for a newly-introduced make. There have been some exceptions, including Tucker and Edsel, for which the volume of publicity at the end nearly equalled the introductory ballyhoo. But to the historian, the date to assign to the last production year for a given marque is often a difficult one to establish because of this principle of "non-publicity".

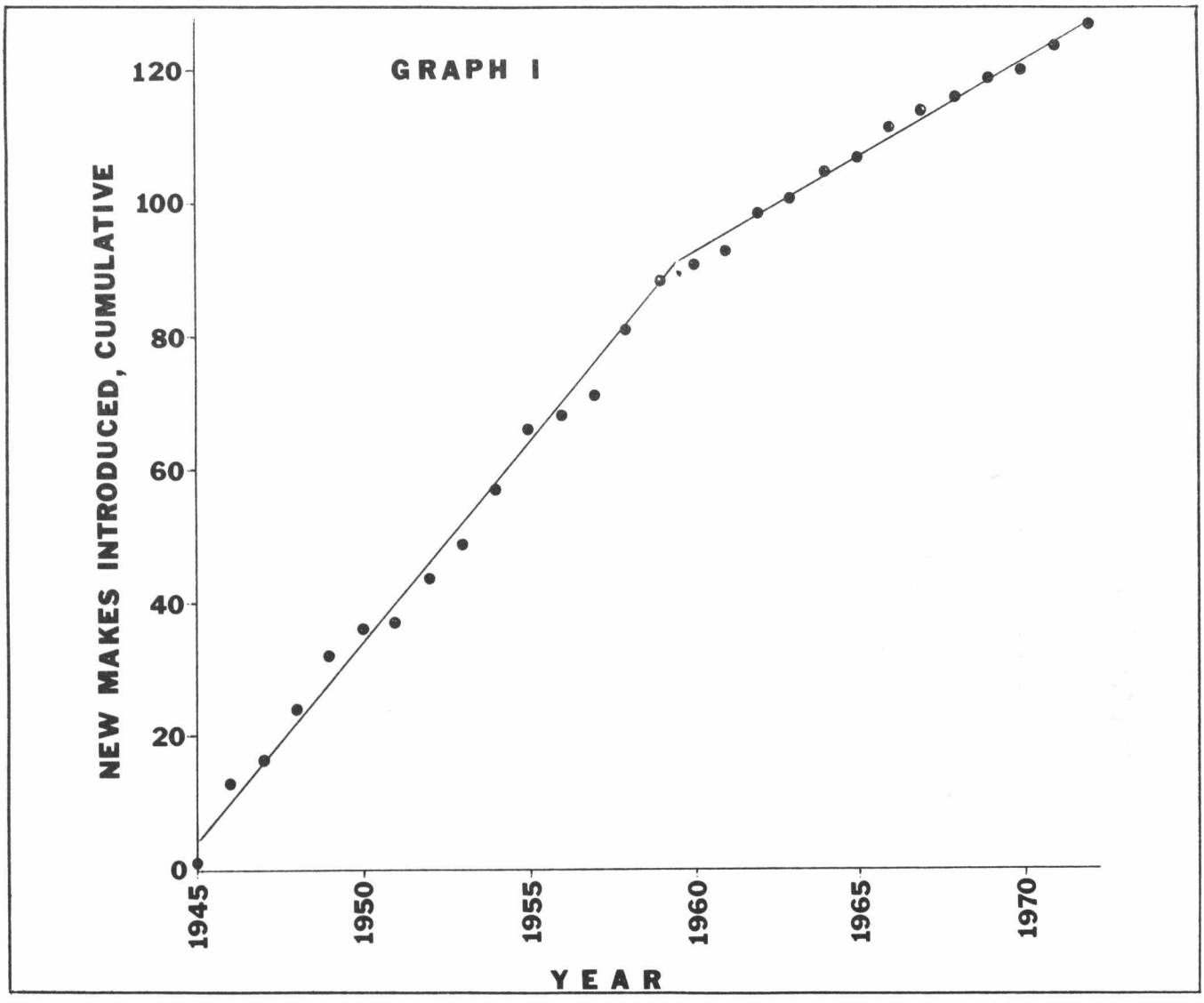
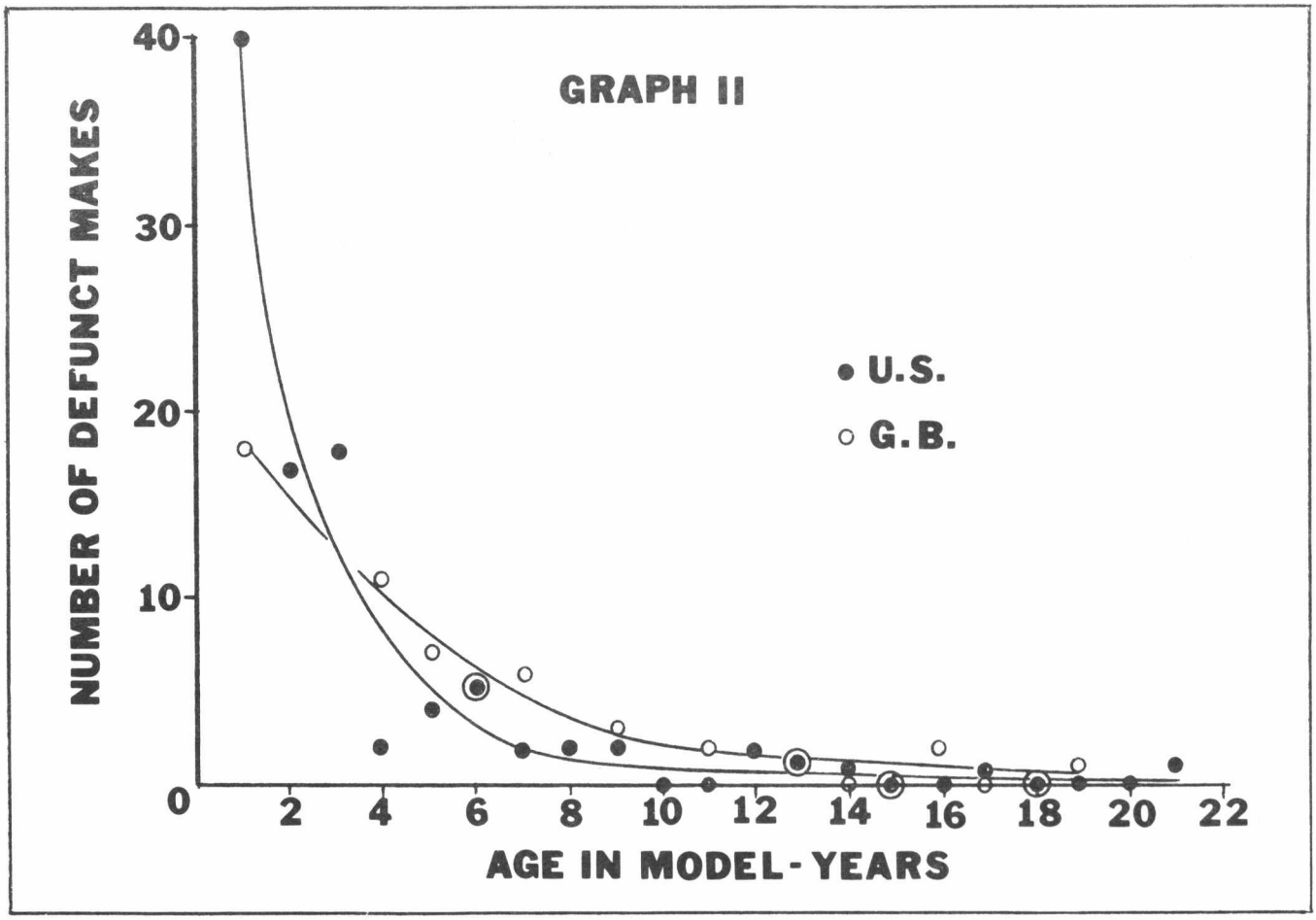
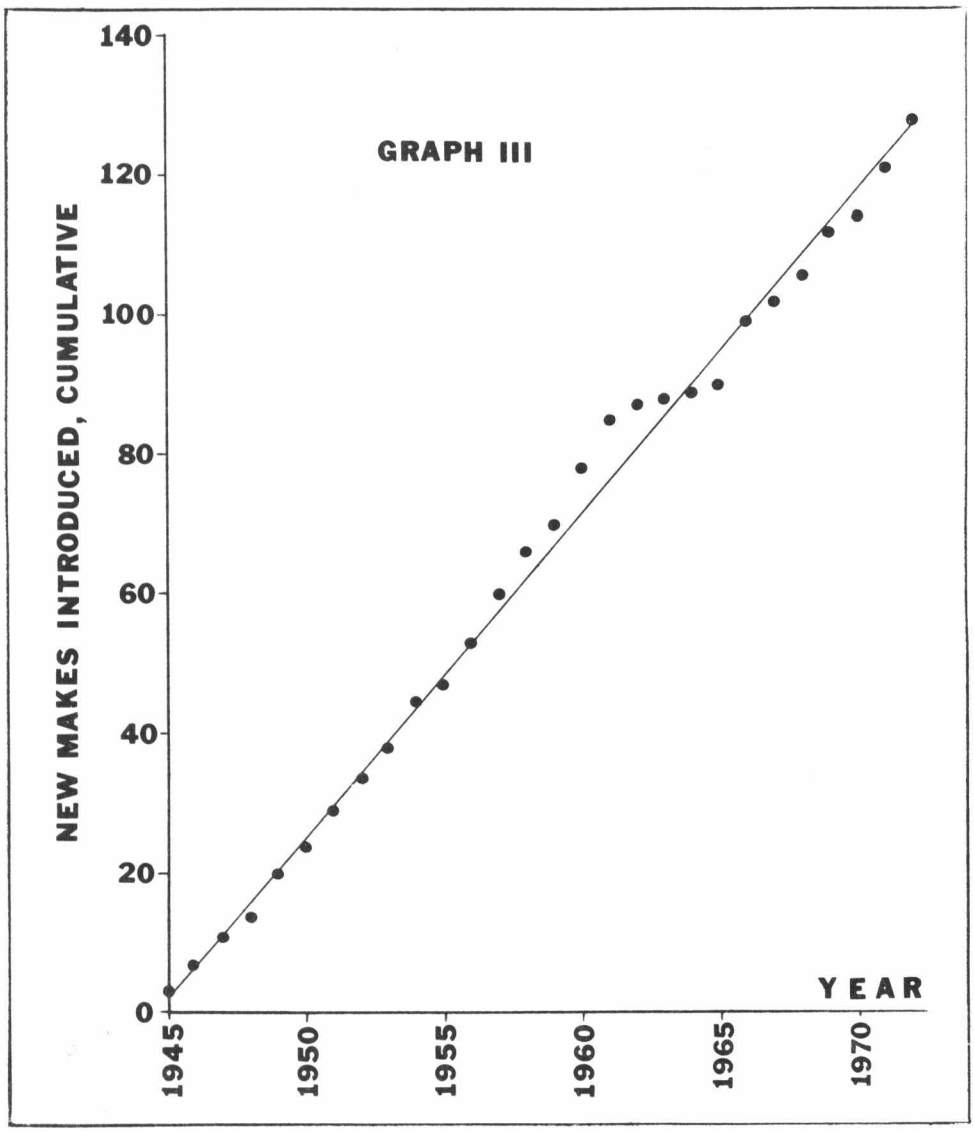


TABLE II - AGE OF DEFUNCT U.S. POST-WAR MAKES OF PASSENGER CARS

Age of Make, Model-Years	Number of Makes Defunct	Cumulative Number of Defunct Makes	Cumulative as Percent of Total Makes Introduced.
1	40	40	31.8
2	17	57	45.2
3	18	75	59.2
4	2	77	61.1
5	4	81	64.2
6	5	86	68.3
7	2	88	69.9
8	2	90	71.5
9	2	92	73.0
10 through 12	6	98	77.8
Extant Makes*	28	126	100.0

* Given as "To date" in Complete Encyclopedia of Motorcars.





For the years 1945 to 1960 the average number of new makes which were introduced was 5.69 per year, while the apparent loss in makes for the same period averaged 5.12 per year for a net gain of 0.57 new makes each year. These figures compare with 2.83 new makes and an apparent loss of 1.50 per year for the years 1961-1972, for a net gain of 1.33 new makes each year. If the information on defunct makes was up to date this latter figure would be much lower. The failure rate of new makes is given in Table II. Here the previous data were examined and the age of each defunct make in model-years was determined, the total counted for each of these ages. This information is plotted and shown in Graph II. It is evident, according to this information, that of the 40 defunct makes, half of them were less than three model-years old when they "folded". These same data, when plotted as a cumulative percentage on logarithmic probability graph paper, yield a straight line of regression. Because there are so few surviving makes from these post-war years, it is likely that this information might well apply to all the new makes introduced during the period under study. The probability for success of a newly-introduced make of passenger automobile has become increasingly poorer during this post-war period and such ventures are more likely to become defunct within a period of two years than to survive into a third model year.

For the automobile industry in Great Britain, the same sort of analysis has been formed, and this yields a value of 4.51 new makes per year on the average. This information is shown in Graph III, and this plot shows no evidence of a "break" in the line as occurred with U.S. data. The reason for this lack of change in the slope is not evident. Surprisingly, the average age in model-years of the defunct post-war British makes is just twice that of the U.S. makes, or 4.40 model-years.

With changes in the economic climate and in the future fuel supply, it is possible that new makes of passenger cars may become even more scarce, and the rate of introduction may drop to an average of just one per year, or less. With fewer makes to contemplate, and little likelihood of increased success for even these few, the future new marques will furnish little grist for writers of automotive history.

TABLE III - PASSENGER CAR MAKES OF GREAT BRITAIN INTRODUCED AND WITHDRAWN, 1945-1972

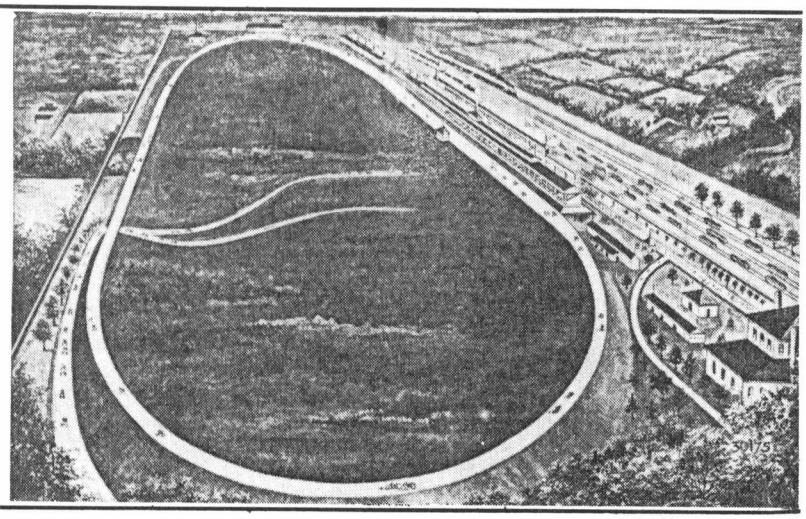
Year	Number of Makes Introduced	Cumulative Number Introduced	Number of Makes Withdrawn	Cumulative Number Withdrawn	Net Change	Cumulative Net Change
1945	3	3	0	0	3	3
1946	4	7	1	1	3	6
1947	4	11	0	1	4	10
1948	3	14	3	4	0	10
1949	6	20	2	6	4	14
1950	4	24	5	11	-1	13
1951	5	29	2	13	3	16
1952	5	34	4	17	1	17
1953	4	38	1	18	3	20
1954	7	45	2	20	5	25
1955	2	47	4	24	-2	23
1956	6	53	3	27	3	26
1957	7	60	3	30	4	30
1958	6	66	4	34	2	32
1959	4	70	6	40	-2	30
1960	8	78	2	42	6	36
1961	7	85	12	54	-5	31
1962	2	87	6	60	-4	27
1963	1	88	1	61	0	27
1964	1	89	5	66	-4	23
1965	1	90	2	68	-1	22
1966	9	99	4	72	5	27
1967	3	102	3	75	0	27
1968	4	106	6	81	-2	25
1969	6	112	1	82	5	30
1970	2	114	3	85	-1	29
1971	7	121	2	87	5	34
1972	7	128	3	90	4	38

TABLE IV - AGE OF DEFUNCT BRITISH PASSENGER CAR MAKES, 1945-1972

Age, Model-Years	Number of Defunct Makes	Cumulative Number of Defunct Makes	Cumulative Number as Percent of All Makes Introduced
1	18	18	14.1
2	17	35	27.3
3	13	48	37.4
4	11	59	47.0
5	7	66	51.5
6	5	71	55.4
7	6	77	60.0
8	2	79	61.6
9	3	82	64.0
10 through 19	8	90	70.2

Atlanta's Two-Mile Motordrome

by E. L. Balderson



Today, if you were to ask a racing fan about the Atlanta Motor Speedway, you would probably hear recollections of seeing Richard Petty and the other drivers of modern day stock car racing, but very few fans realize that there was a much earlier speedway located in the Hapeville section of Atlanta during the years 1909 and 1910.

The groundwork planning for the early Speedway was conceived on a hot June afternoon in 1909 while Asa G. Candler, Jr., and Edward M. Durant, two prominent Atlanta businessmen, were returning from a trip south of the city. Both gentlemen had recognized that the country needed a proving ground for the automobile, which was just beginning to make headway against man's trustful friend, the horse. Besides, what better way could there be to bring more business into Atlanta than to build the country's "greatest speedway"?

A site was proposed and a stock company called the Atlanta Automobile Association was formed, with Candler as its president and Durant as secretary, to purchase the land required to build a two-mile speedway.

Construction began in July, with the first race meeting scheduled for early November of that year. By working 24 hours a day construction stayed on schedule, with the track's 100-foot wide home stretch and 68-foot wide turns and back stretch of clay, sand, asphalt binder completed by race day, while carpenters were still putting finishing touches on the main grandstand and bleachers as spectators arrived for the first day of racing on November 9th. The entire track cost an estimated $400,000, with a seating capacity of 40,000 spectators.

On November 5th most of the A.A.A.'s crack racing crews and drivers began to arrive in Atlanta by rail from New York for the proposed five day race meet. Such known drivers as George Robertson, Ray Harroun, Louis Chevrolet and Barney Oldfield sent Atlantans scurrying to local ticket outlets to snap up bleacher and grandstand tickets at $1.00 and $2.00, respectively.

Spectators began to arrive early for their first taste of speed and daring, with late arrivals still wending their way into the gate as the first feature of the day started. This was a free-for-all one mile trial starring Barney Oldfield, 120 H.P. Benz; Lewis Strang, 120 H.P. Fiat; Walter Christie, 130 H.P. Christie; and Jack Rutherford, 30-60 H.P. Stearns. The winner proved to be Strang with a time of 37.71 seconds, which displaced Oldfield's newly acquired record which had been established at the new Indianapolis track less than two months before. The winner was followed by Oldfield, Christie, and lastly Rutherford, the great amateur driver whose amazing career lasted well into the 1950's.

Interest was kept at a fever pitch throughout the afternoon by a series of stock chassis races which varied in length from two miles to ten miles, and which provided honors for John Aitkin, National 40; Joe Matson, Chalmers-Detroit 30; Harry Stillman, Marmon 35; and Strang, Fiat 120.

The last feature of the day was 200 miles in duration, with the Coca-Cola Trophy and $600 going to the winner, which would prove to be Louis Chevrolet driving his famous 30 H.P. Buick. Although Chevrolet did score a clear-cut victory, it was not without tribulation. The fearless Buick driver was forced to fight off repeated challenges from the Chalmers-Detroits of Bert Dingley and Lee Lorimer, which was further complicated by the Buick trying to cremate itself on the race's eighteenth lap. Non-entered Apperson driver Hugh Harding, viewing the race from the press stand, first spotted the flames but was too late in warning the officials. Luckily, Chevrolet and his mechanic detected the fire and stopped on the back stretch, where they extinguished it without a great deal of damage, not losing too much time in the process. The finishing order was: Chevrolet, Dingley, Lorimer, and Charles Basle's Renault 45. The winner's time was recorded as 2 hours, 46 minutes, 48 seconds, an average of 72 miles per hour.

The racing meet's second day dawned overcast and raining, in contrast to the first day's cool temperature and bright sun. Interest centered on a specially arranged ten mile match race which again showed that Strang was more than a match for Oldfield and Christie. Strang's winning time was 7 minutes, 1.94 seconds, which placed

him 26 seconds ahead of second place Oldfield. Strang came back later in the day to win a four mile free-for-all over Christie, defeating him by over 22 seconds. In the other scheduled races Hugh Harding picked up a trophy for winning a ten mile stock chassis event, driving an Apperson 50, and Bill Knipper scored a win over Joe Matson, both piloting Chalmers-Detroits in a 100 mile stock chassis race for cars within 161-230 cubic inch displacement. His time was 1:40;46.82 (59.54 m.p.h.).

Ray Harroun, driving a 30 H.P. Marmon, dominated the third day of racing by winning a 120 mile stock chassis race in 1:49:26.04 (65.79 m.p.h.) and finishing second to Louis Disbrow by 18 seconds, after receiving an official handicap of two minutes and 30 seconds in a 20 mile free-for all handicap race.

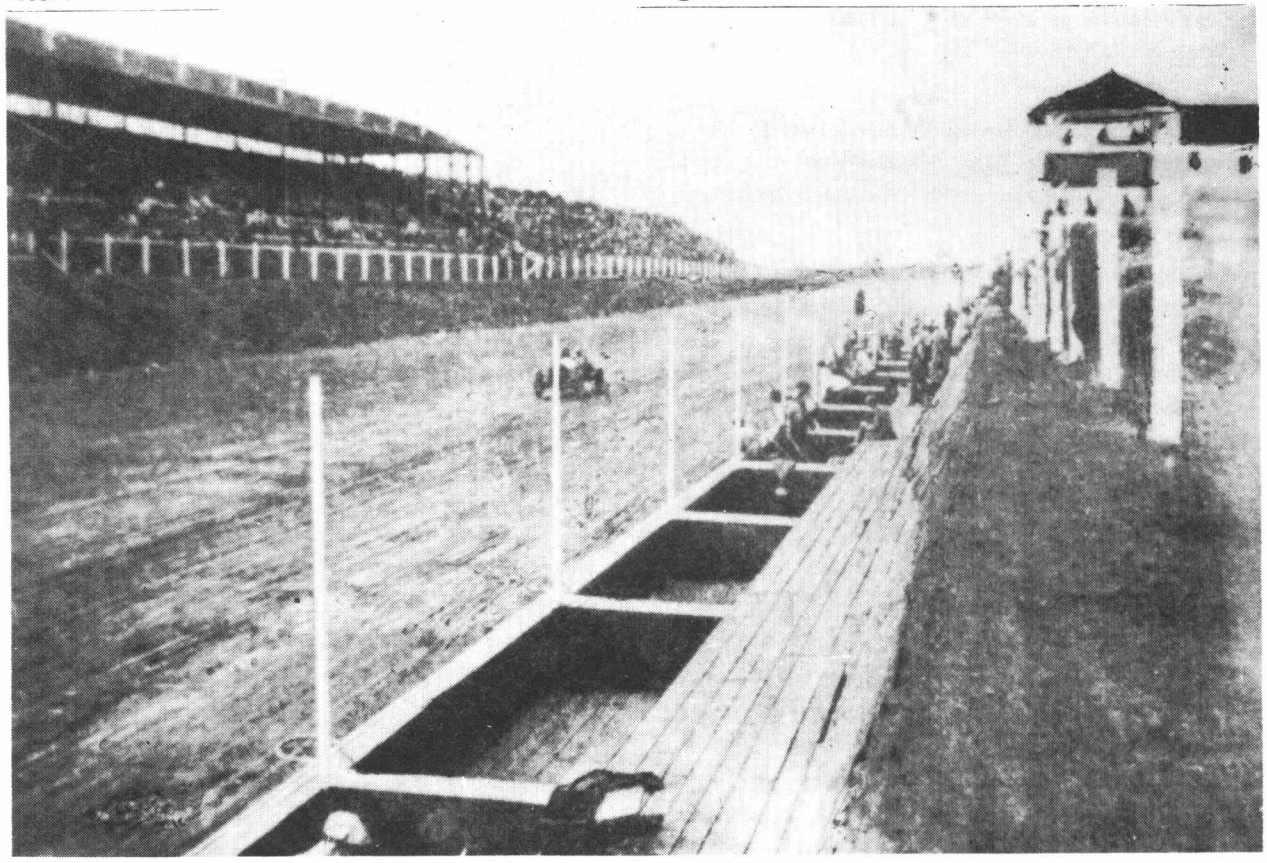
The stark reality and terrors of early racing were brought to bear upon the spectators during the early morning hours of the meet's fourth day of racing. H. J. Kilpatrick, while running a test on a Pope-Toledo racer owned by Speedway President Asa Candler, Jr., blew an engine and overturned. The car came to rest in flames in the center of the back stretch, after depositing both driver and mechanic in the brush lining the track. When ambulance assistance arrived, both men were found on their feet but suffering from minor facial burns and numerous cuts and bruises. Both would recover to race again. In the lap preceding the accident, Walter Christie had clocked Kilpatrick at over 85 miles per hour and had warned him to slow down. The forthcoming races were delayed while the Pope-Toledo was allowed to burn itself out, and track repairs could be completed.

After the delay due to the Kilpatrick wreck, Bill Knipper wasted little time in gunning his Chalmers-Detroit ahead of teammate Joe Matson in a 20 mile stock chassis race for cars with displacement of 161-230 cubic inches. John Aitkin, Ray Harroun and Lewis Strang won the day's remaining stock races, which were all of less than 20 miles in duration.

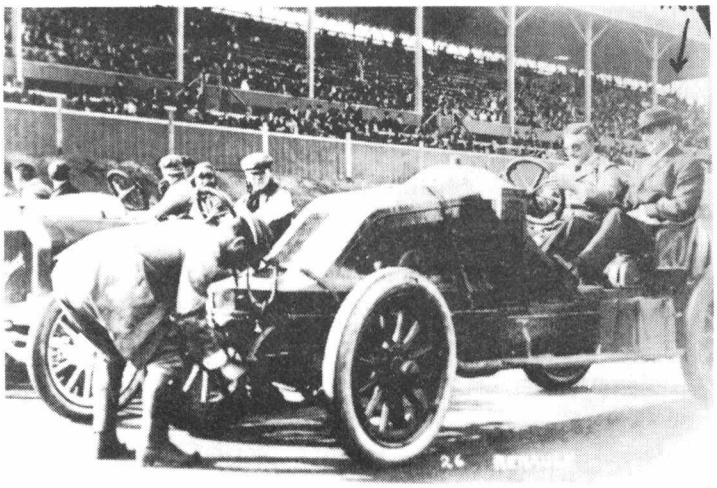
The center of attention on the last day of the meet was a 200 mile race for stock cars with a displacement greater than 451 cubic inches. It drew all of the big guns from the previous races, which made up the meet's largest starting field to date - 11 entries. George Robertson's Fiat 60 jumped into a narrow lead at the crack of Fred Wagner's starting gun, closely followed by Chevrolet's Buick, with Strang's Fiat in third place. Robertson continued to build an ever-increasing lead on the rest of the field, and by the 17th mile was more than a quarter of a lap ahead of Chevrolet, while Lou Disbrow had displaced Strang for third place.

The strain of racing began to take its toll among the leaders. Strang was forced out of the running by repeated tire trouble, and Chevrolet left the race in the 94th mile because of transmission trouble. Mechanical problems also claimed Robertson's leading Fiat when a broken driving chain forced him into the pits for repairs which would cost him four laps and the race. Disbrow's Ranier flashed under the checker in 2:53:48.32 (69.04 m.p.h.) ahead of Robertson's Fiat, followed by C. Basle and L. Basle in Renaults.

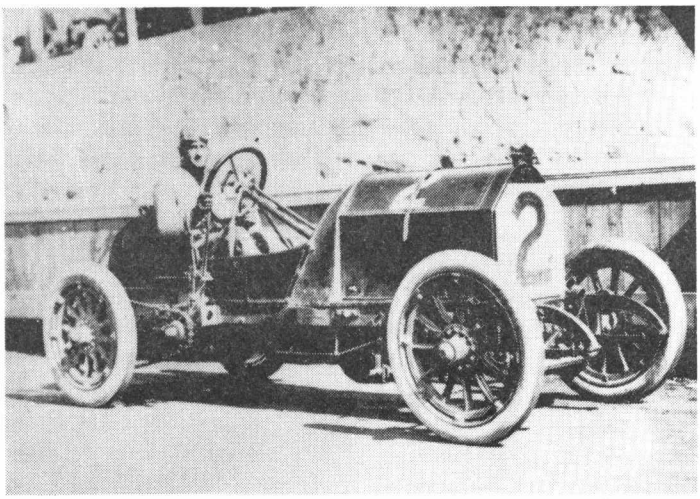
Atlanta's first speed meeting had ended with glowing success. Some sources had estimated spectator attend-



Front Straight, Atlanta Two-Mile Speedway. (Photo from Horseless Age)



Renault racing car at the Atlanta Speedway, November, 1909. The man at the wheel is believed to be George Robertson. (Photo from the author's collection)



Caleb Bragg at the wheel of Fiat No. 2, at the Atlanta Speedway, November, 1910.
(Photo: Jerry E. Gebby Collection)

ance for the five days to have been over 100,000. One local newspaper scribe reported that Atlanta had gotten its first taste of speed and was hungry for more.

The Speedway's second speed meeting was somewhat less auspicious, with only a three day meet planned instead of the five of the previous meeting. The dates chosen were May 5 - 7, 1910. Many of the nation's leading drivers returned, including a new speed sensation named Ralph DePalma, whom one contemporary newspaper proclaimed as being "The Champion of France"!

The first day's feature race of 200 miles for stock chassis cars within 301-450 cubic inch displacement proved to be a runaway for Ray Harroun and his bright yellow Marmon in 3:02:31.24 (65.75 m.p.h.). Second place man Strang, driving an S.P.O., was more than 40 miles in arrears at the finish. The lesser events of the day were taken by DePalma, Endicott, and again, Harroun.

The Speedway management crowded seven races into the second day of racing. The first was a one mile trial in which DePalma triumphed over Harroun, Christie, and Lytle, in that order. DePlama's time of 40.32 seconds (89.29 m.p.h.) was less than one second ahead of second place driver Harroun.

Harroun, Marmon; Tom Kincaid, National; Bill Endicott, Cole; Herb Lytle, American; and amateur driver John Woodside, S.P.O., visited the winner's circle before day's end by winning the lesser races scheduled for that day. The feature race of 200 miles was cancelled due to lack of entries. There were only 14 total entries for the entire three day meet.

The next day Ralph DePalma resumed his winning ways by claiming victory over Lytle and Kinkaid in a ten mile free-for-all. The dust had hardly begun to settle from DePalma's winning Fiat before Bill Endicott led from start to finish in the 12 mile stock chassis race, defeating lesser known drivers Cohen and Frayer.

The final feature of the day gave the participants a chance to show their endurance in a 200 mile contest. Six starters faced Fred Wagner for the grind, including favorites DePalma, Lytle, Harroun, Kinkaid, and amateurs Stoddard and Woodside. At the crack of the starter's gun, Lytle drove into a narrow lead followed by Kinkaid, DePalma, Stoddard, and Woodside, but by the second lap Kinkaid's big National had forged its way into the first place for one lap before being re-passed by Lytle. These two had just begun a struggle which would last throughout the race and leave the other four far behind at the conclusion of the race. At half distance Kinkaid broke off his duel and dove into his pit to accept relief driving from John Aitkin and for a change of tires. Lytle continued to circle the track, now faced with the possibility of an approaching storm, evidenced by loud claps of thunder and flashes of lightning seen on the horizon. At the race's 112th mile the first few drops of rain began to fall, which sent track crews scurrying to their stock piles of sand used to cover the track's four turns. The slickness of wet Georgia red clay is beyond description. The worsening condition caused leader Lytle to loop his car five times in full view of the remaining spectators, huddled together in the main covered grandstand on the home stretch. As a result of the spin, Lytle was forced to make a pit stop to change his somewhat abused tires. As he struggled to perform this muddy task, he hardly had time to notice Aitkin speeding into the lead just scant feet away, now throwing up a huge rooster tail of mud in the wake of the worsening rain. Lytle's American sped back onto the track's treacherous surface well out of the lead but still ahead of third place man DePalma. The distance closed between the leading National and second place American ever so slightly during the few remaining laps, but the gap was just too huge for lost ground to be made up, and Aitkin won by just under three minutes from a tired Lytle. As winner Aitkin was still wiping his mud-splattered face, the Speedway management announced that it would stage one last contest of three day's duration sometime during the first part of November of that year.

The A.A.A. and the Atlanta Automobile Association settled on November 3-5, 1910, as the date for the Speedway's second annual fall race meet. Many of the same teams that had appeared in the spring meet returned, with Bob Burman, Caleb Bragg, and the Lozier team of Ralph Mulford and Joe Horan making their first appearances at the track.

Practice opened on October 31st with most of the teams taking advantage of the ample time for testing and and noting changes in the track's surface that would have occurred since the racing six months earlier. Both Charles Basle and Bob Burman had close calls when their two cars experienced suspension and wheel failures brought on by the track's rough condition. Many other drivers complained about the track's surface, but were told by officials that it would improve after a little more racing was done on it.

By late afternoon of the second official day of practice, track officials were requested to close the track until repairs to its surface could be made. A decision was made, and it was announced that the track would be closed until the next morning, hopefully with the surface more to everyone's liking. Sharply at 4:00 P.M. starter Fred Wagner began flagging the cars off the track, with the exception of apprentice National driver Al Livingston, who had requested two extra laps to try to improve his previous time, which had been well behind the pace of the other drivers. Those two extra laps would prove to be a fatal mistake for Livingston. On that second lap his huge blue National burst a right rear tire and overturned, throwing him to the track on which he received serious head injuries that killed him only hours after the accident. Livingston was totally unknown in the south. He had been signed on by National earlier in the year after making quite a reputation as a dirt track star on the west coast. He became Atlanta's first racing-related fatality, although he was not the track's first death. (A local driver had been killed while testing a passenger car in a private session that spring). In respect, John Aitkin withdrew the National team.

By the first full day of racing, November 3rd, track conditions had improved enough for a schedule of seven short races to be held, with Bob Burman, Ralph Mulford, and the Marmon team of Harroun and Dawson picking up the victory spoils in the feature races.

The second day's racing was dominated by the two young speed demons Burman and Dawson, with Burman winning the 10 and 20 mile free-for-all races, and Dawson cleaning up the 12 and 14 mile stock chassis races.

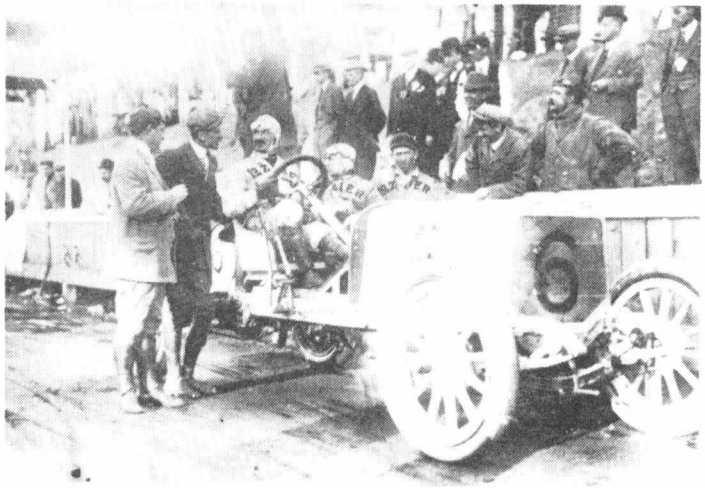
Due to heavy rain, the race scheduled for the final day had to be officially postponed from its original date of Saturday, November 5th, to the following Monday when the Speedway's longest race, 250 miles, would be staged. It was officially known as the Speedway Trophy Race, and brought 16 racing cars together for its $3,000 first prize. Race day weather was fair and brisk, but few spectators took advantage of the good weather and the grandstands appeared almost empty.

Starting positions were decided by the luck of the draw, with each driver waiting in line to take his chance. Bob Burman, standing close to the head of the line, drew a very good starting position and was asked by Ralph Mulford to draw his position also, since Burman seemed to have a bit of luck at that sort of thing. Burman agreed, and drew the last place position for Ralph which caused a lot of joking among the crowd.

Ralph Beardsley's Simplex jumped into a narrow lead at the race's start, but by the second lap Harroun, Dawson, Burman and Mulford drove by him. At the tenth lap mark Harroun's yellow Marmon continued to build a slight lead over second place Burman, who was in turn followed by Mulford, Dawson, and Joe Matson moving into the top five for the first time. Six laps later Burman threw a tire (the first of nine he would suffer before the day's end) and was forced to pit for repairs, which dropped him to sixth place behind Joe Horan and Beardsley.

The track's rough surface, caused by several days of rain, began to take its toll of the racing machines. R. V. Church, driving a Simplex, blew a tire and crashed through the fencing on the back stretch while holding eighth place on the race's 20th lap. Both driver and mechanic escaped with only a shaking. Amateur driver Bill Stoddard, only 33 miles later, did not escape quite so luckily. His big Fiat broke its steering while entering the south turn at full speed. The car crashed trhough the outside fence, and continued down a 20-foot embankment, finally coming to rest amazingly right side up. Driver and mechanic were slightly injured, being tossed from the Fiat after the initial impact of going through the fence. Joe Horan's Lozier was eventually flagged the winner in the fast time of 2:51:12.72 (70.09 m.p.h.).

An Australian pursuit race and a 20-mile amateur free-for-all affair were cancelled due to lack of entries and just plain indifference on the part of the few spectators in attendance. In fact, many had begun to leave before the Grand Prize Race had ended.



Joe Horan, driver of Lozier No. 6, chats with Charles Emise, Publicity and Advertising Manager of the Lozier Motor Company, at the Atlanta Speedway, November, 1910. (Photo from the collection of Jerry E. Gebby)

Thus ended the racing history of the Atlanta Speedway after only one year and three race meetings. There are many reasons for its failure, the two most apparent being poor management and general lack of spectator interest. The Speedway management was formed by men of wealth for their own interest and amusement, and their lack of promotional experience hurt. There were always too many races scheduled on any given racing day, which in turn led to too few entries for the races. The sight of just four cars scattered around a two-mile track did not offer enough of an attraction to hold people's interest. If the management could only have had one or two long distance races, say two or three hundred miles, with larger starting fields, spectator's interest might have been held. Carl Fisher used that basic idea to establish the Indy track after several years of mediocre success.

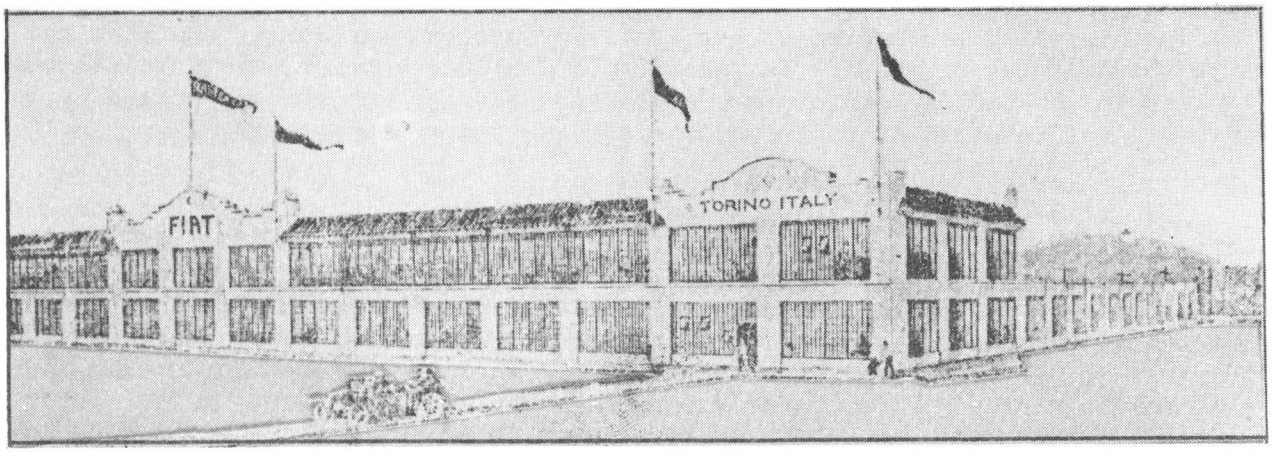
Asa Candler summed up the matter of spectator disinterest better than anyone, when asked that question by a reporter at a press conference just several days after the race. Candler's reply: "One or two things over which we had no control hurt us, of course. Barney Oldfield's disbarment by the A.A.A. hurt, but we had nothing to do with it.* The withdrawal of the Nationals hurt us, but after Al Livingston was killed there was nothing else for them to do."

Candler continued, "Our first meet here, last fall, offered a sensational novelty. It was the novelty that attracted the crowd. Much of the novelty had worn off when our spring meet was held. Very little was left when the recent meet opened."

The old track lay dormant until the late 1920's when local government authorities decided to purchase the land from the Candler family for use as an airfield. By 1970 the last remains of the old speedway were plowed under and resurfaced with concrete to enlarge the facilities of what is now Hartsfield International Airport.

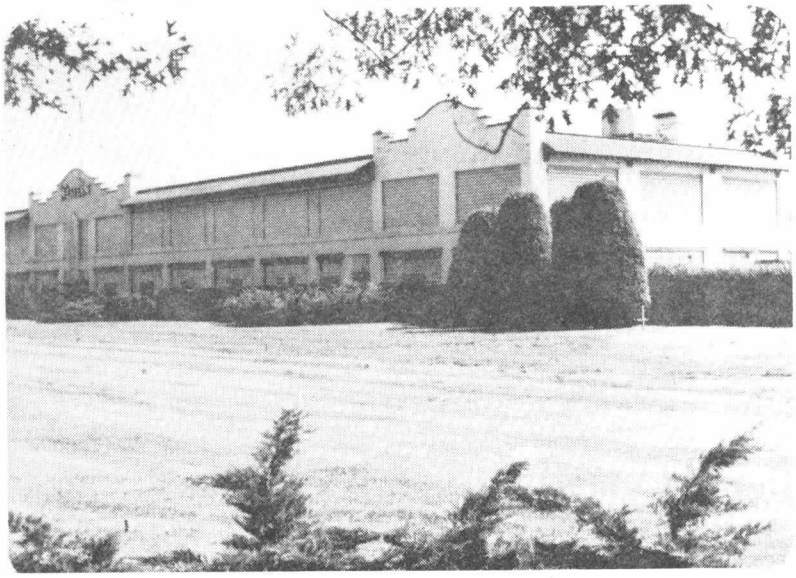
* *Oldfield was disbarred after his infamous match with Jack Johnson, October, 1910.*

AS THEY ARE NOW . . . AMERICAN FIAT PLANT IS STILL A LANDMARK. . . by Fred Roe



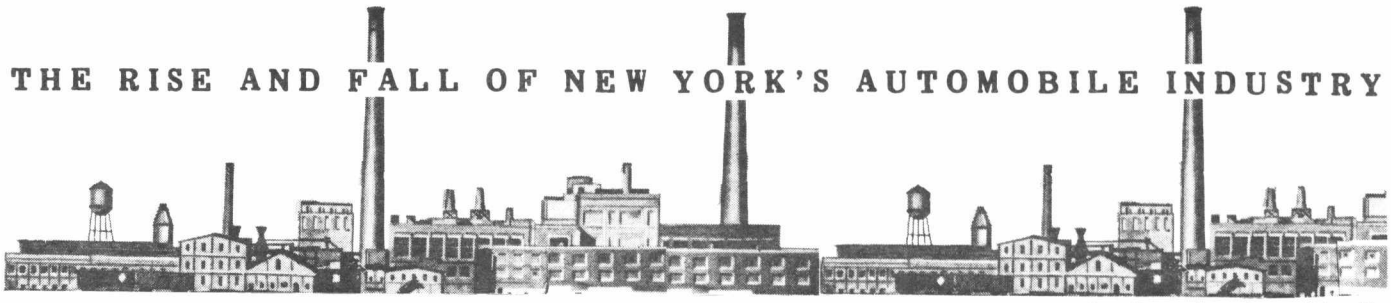
The Fiat factory at Poughkeepsie as it appeared in 1913. This is a retouched Xerox copy of a drawing which appeared in The Courier, Poughkeepsie, N. Y., January 26, 1913, while the building was still under construction.

On the north edge of Poughkeepsie, New York, the well-kept plant of the Western Printing and Lithographing Company stands as a familiar landmark to travelers on busy Route 9. Few of them realize that this plant was built to manufacture Fiat cars. This recent photo shows that the building has changed very little in appearance since 1913, when a 30,000 square foot addition brought the facade to its final development. Except for the replacement of the windows with glass brick walls, and the name "Western" above the central entrance, few changes have been made. In 1918, upon the discontinuance of Fiat manufacture, this plant was purchased by the Duesenberg Motors Corporation solely for the purpose of quickly obtaining an additional supply of vitally needed machine tools and factory equipment to use in the fulfillment of its government contracts for aircraft engines. What use was made of this plant after Duesenberg removed the equipment to Elizabeth, New Jersey, is not known.



This photograph, by Fred Roe, shows the old Fiat plant as it appears today.

THE RISE AND FALL OF NEW YORK'S AUTOMOBILE INDUSTRY



by Gary Levine, Ph. D.

Even the casual observer of industrial growth in America would agree that New York State after the Civil War was a major commercial center. It had acquired a reputation as a leader in the major industries, and for two years it dominated the growing automobile industry. In 1900 the state was first in the nation with approximately 60 firms producing automobiles for sale; Massachusetts was second with 54 firms, and Illinois third with 22.[1] In the years 1900-1902 New York produced almost half of the 20,100 cars made.[2] It has even been reported by one writer that it led the nation in automobile registrations.[3] In 1902 new car buyers registered 1,000 vehicles out of 9,000 manufactured nationally.[4] By 1903, however, production shifted drastically to Michigan and Ohio, and New York quickly lost its pre-eminence in the industry.

The reasons for this change become clear only when one examines the importance of geography, the available natural resources, the transportation facilities, the type of motive power selected by the manufacturer, and the manufacturer's policies. From 1895 to 1900 inventor and entrepreneuer realized that the automobile could be the means to the building of a quick fortune. Their problem, however, was complicated by not knowing which kind of motive power would succeed, for vehicles propelled by gasoline, steam, and electricity had about the same number of supporters.

Shortly after the automobile race sponsored by the Chicago Times-Herald in November, 1895, there were still only a few people willing to purchase these horseless carriages. In 1896 Henry Ford sold a gasoline buggy to Charles Ainsley of Detroit for $200.[5] Two years later Elwood Haynes joined with the Apperson brothers to form an automobile company in Kokomo, Indiana.[6] At about the same time, Albert Pope, of Hartford, Connecticut, who was the nation's leading bicycle manufacturer, decided to enter the business. He favored the electric car.[7] By 1898, 16 newcomers had entered the field and automobiles were now offered for sale to the public in quantity. A year later more than a hundred hansom and coupe cabs were in service in New York City, over 90 per cent of which were electrically propelled.[8]

New York City was a likely place to build automobiles because it was the nation's leading financial and manufacturing center. There was no other city in the country with as much industry per square mile and it represented sixty per cent of the manufacturing in the state.[9] It also possessed an abundant labor supply, leading the nation in the number of factory employees in 1890.[10]

Among the other well-endowed industrial areas was the city of Buffalo which had a growing population, abundant electricity from Niagara Falls and a strategic location on the Great Lakes. Shortly after the Civil War it possessed "800 small factories employing 18,000 workers and a population of 150,000."[11] Although much smaller, Albany, Troy, Schenectady, Poughkeepsie and Kingston were bustling commercial centers which had excellent rail facilities and a lucrative river traffic. By 1901 there were a number of growing automobile firms in New York City and Buffalo which attracted national attention. Approsimately forty firms had facilities in New York City and its environs, the largest being the Mobile Company of America and the Lancamobile Company.[12] Buffalo boasted thirty firms which built cars or trucks. One of them, the Kensington Company, made steam, gas and electric cars, demonstrating that it was still uncertain as to which motive power would succeed.[13] There were five firms in Syracuse, two in Kingston, one in Poughkeepsie, one in Plattsburgh and many others scattered throughout the state. Most of these companies were well-established in other enterprises and making automobiles was a sideline.[14]

The Mobile Company of America gave promise of dominating the entire industry. It was originally the brainchild of John Brisben Walker, publisher of *The Cosmopolitan Magazine*, who, like most Americans, became fascinated by the new machines. In 1899 the fame of the Stanley steamer reached him and he traveled to Newton, Massachusetts, to examine the small carriage which could do twenty-five miles per hour on poor roads.[15] Impressed by what he saw, Walker purchased all rights to the vehicle for $250,000 and then joined with asphalt millionaire Amzi Lorenzo Barber to form the Automobile Company of America with its main office in New York City.[16] Within a few months Walker and Barber terminated their partnership, the former establishing the Mobile Company at Tarrytown, New York, while the latter set up the Locomobile Company of America at Bridgeport, Connecticut.[17]

Walker, however, soon found it more difficult to sell automobiles than magazines. He purchased the Philipse Manor property at Kingsland Point, near Tarrytown, and there he erected what was considered to the "the largest automobile factory in the world."[18] By 1900 his production figures totaled ninety carriages a week, but operating costs amounted to more than $250,000 a month.[19] This turn of events caused him to offer for sale $400,000 worth of preferred stock at a par value of $100 a share.[20] Hoping his financial manipulations would save the company, he stepped up production and increased the number of models. Appealing to the safety-oriented buyer the company claimed that it had:

> *A horseless carriage weighing less than five hundred pounds and costing but six hundred and fifty dollars. Compactly built with workmanship of the highest quality, capable of twenty miles or more an hour...it is operated by steam which renders it absolutely safe.*[21]

Walker was particularly active in selling and producing his product and even coveted the commercial market by making delivery wagons and omnibuses.[22] His car was continually kept in the public's eye. One ascended Pike's Peak to the timberline, covering the fifty miles without a breakdown.[23] Another swept to victory over five other steamers in a race held at Newport, Rhode Island, in September, 1900, carrying off the Vanderbilt Cup.[24] Sales, however, declined, and in 1903 the company went bankrupt.

Amzi Lorenzo Barber

John Brisben Walker

Photo source: Notable New Yorkers, (Moses King, N.Y., 1899)

During its brief lifespan the Mobile Company produced 6,000 vehicles which included twenty-one models ranging in price from the $550 carriage to the $3,000 heavy truck and the limousine.[25] Price, however, was not the main reason for the company's failure. For three years Walker was selling the same vehicle as Amzi Barber and the Stanley brothers who had re-entered the business. The competition between the three was too keen for the limited market and Walker was the first to find this out. The Stanleys made such improvements on their car that it became superior to the competition. Thus New York lost a major car producer – a blow to its growing automobile industry from which it did not recover.

A number of other firms also gambled with steam and lost. In 1900 the Lane Motor Vehicle Company of Poughkeepsie, New York, was an established enterprise. William G. Lane, a mechanical genius, held patents on a hayrake, a self-measuring faucet and a water motor for sewing machines.[26] His factory, which he operated with his brothers John and David, produced door-hangers, various mechanical devices and scientific instruments, probably the largest variety of items produced by any one firm in the country.[27] From 1900-1912 the company made only about twelve cars yearly. The Lane cars, though few in number, were nationally known for their speed and durability.[28] They were also unique among steamers with their automatic features and a boiler which was a combination of the fire and flash tube types.[29] Each vehicle was hand-built of the finest materials obtainable; the bodies were of aluminum, the frames of steel and the fittings of brass. Prices ranged from $2,650 for the roadster to $3,400 for the tonneau.[30]

The steamers manufactured by the Foster Automobile Company of Rochester were also well-received. In 1900 the firm showed its first models at the Madison Square Garden Bicycle and Automobile Show which prompted the *New York Tribune* to declare:

> *The popular interest exhibited in automobiles at the Madison Square Garden Bicycle and Automobile Show during the last week was in large measure concentrated in the motor carriages made by Foster and Company, a firm of Rochester manufacturers. The vehicles manufactured by this firm are noteworthy for their simplicity and mechanical construction and the excellence of their workmanship.*[31]

Fosters came in only three models whose prices rose as sales fell. The 1900 carriage weighed only 650 pounds and cost $650 – a competitive price at the time.[32] The same carriage cost $1,000 in 1903, and this price did not include a condenser, mud guards, double-acting bulb-brake, side lamps and tools – all of which cost $200 more.[33] With sales declining the directors sold out to the Artzberger Automobile Company of Alleghany, Pennsylvania, but within two years this firm also folded.[34]

At Syracuse, some ninety miles from Rochester, the Canadian bicycle builder Edward C. Stearns built a popular steamer which bore his name. Competition from this vehicle was probably an important factor in the downfall of the Foster car.[35] Stearn's early success was due to the nine models his firm made. These included a $600 runabout, a $1,200 delivery wagon, a $750 buggy with a victoria top and a $1,200 four-passenger surrey.[36] Limited to 300 vehicles a year, sales declined until in 1903 the firm went bankrupt.

The story of Foster and of Stearns is typical of the companies that made steam cars in New York State. None achieved any marked success and only a few were able to attract capital for research and advertising. At the time the limited steamer market was dominated by the Stanley brothers at Newton, Massachusetts, and the White Sewing Machine Company of Cleveland, Ohio. As a result, many New York firms failed including Century (Rochester), Conrad (Buffalo), Elite (Utica), Wood Vapor Vehicle (New York City), Henrietta (New York City), and Ofeldt (Jackson-on-Hudson).

Electric cars fared no better and for good reason. Early electrics consisted of four main components: an electric motor, a transmission gear, a circuit controller and a battery. The latter stored up electricity and supplied current to the motor through the medium of a switch while the transmission gear regulated the engine speed.[37] Although electrics had many supporters, their disadvantages soon

dampened everyone's enthusiasm. Equipped with one or two horsepower motors, they used their charge too rapidly and were therefore limited to between twenty and thirty miles a day. Recharging the battery took more than six hours.[38]

At the time the electric vehicle industry was dominated by the giant Electric Vehicle Company, also known as "the lead cab trust", with its main factory in Hartford, Connecticut.[39] In New York State the Buffalo, the Babcock, and the Kensington — three Buffalo electrics — and the Knockerbocker, built at New York City, had short lifespans.[40] The competition from the Electric Vehicle Company and several out-of-state firms quickly pushed these cars out of the market.

Builders of gas cars were to have more success, and they kept the industry alive until the depression ridden Thirties. The big three of New York's auto industry were Pierce, Thomas and Franklin — outstanding motorcars with international reputations. The George N. Pierce Company of Buffalo, originally builders of bird cages and bicycles, began making automobiles in 1901 and lasted until 1938, when it folded. Company integrity and a quality car were responsible for the longevity of the Pierce name. An early advertisement boasted that the Pierce was:

> *a stylish powerful light car with a 15 h.p. De Dion double cylinder motor...caries five people comfortably. So simple in mechanism it can be run by the owner. Surpasses the work of larger and more expensive cars with less expense for running and repairs.*[41]

In 1905 Percy, son of the company's founder, entered the first Glidden Tour with a model called the "Great Arrow" and drove 867 miles over the most difficult terrain to capture the much sought after trophy.[42] Laurels were piled upon laurels and soon the car became the symbol of the affluent. Company policy was that of high quality car production, in limited numbers. In 1902 only 125 two passenger motorettes were made; the following year 200 cars were built while only 425 were made in 1905.[43] Pierce cars grew in size, price and competitiveness. The 1914 Pierce Arrow was the largest car built in the country, having a twelve foot three and a half inch wheelbase, thirty-seven inch high tires and a body made of one-fourth inch thick cast aluminum.[44] The price range at this time was from $5,850 to $7,300 — certainly not a car for people of moderate means.[45]

Thomas was also among the famous marques of the automobile world. After moving to Buffalo from Cleveland, Ohio, in 1896, Erwin Ross Thomas proved to be a dogged competitor in the growing automobile business. He adapted his experience in building bicycles and motorcycles to automobiles and with financial help from E. M. Statler, the hotel magnate, made his first car in 1901.[46] Within a year he was turning out 200 cars and almost a thousand motorcycles from his newly constructed factory.[47]

Following the example set by George Pierce and many other automakers Thomas built his cars for the rich, and by 1904 the huge tonneaus and limousines were selling for between $1,250 and $3,000.[48] For that price a buyer could choose a four cylinder engine of thirty, forty or fifty horsepower or a six cylinder engine of sixty horsepower.[49] High cost and luxury, though, were not the factors which added to the car's international reputation. In 1908 a six cylinder Thomas Flyer won the *New York to Paris* race taking 170 days to cover 13,341 miles, a feat accomplished with a minimum of mechanical problems.[50] In discussing the victory, driver George Schuster commented:

> *It goes without saying that in this race, undoubtedly the most difficult endurance contest ever undertaken, we encountered the roughest roads to be found anywhere; besides, we found it necessary to travel for hundreds of miles on railroad tracks. For the most part these tracks were poorly ballasted, and in Siberia the railroad ties were set so far apart they allowed all four wheels of the car to go down with a thud and then up again with a jerk when the power was applied. This made it necessary to maintain a high speed to keep the wheels of the car from getting wedged in between the ties.*[51]

If the race proved anything at all it was that Americans could build quality cars equal to the best of the French or English. In spite of this triumph and the accompanying publicity, Thomas cars would be built in quantity for only four more years. The $100,000 cost of the race, bankers' demands and stiff competition from cars with lower price tags brought an end to this famous name.[52]

The Franklin, one of the most unique cars made, had much better luck and a longer life. Built at Syracuse from 1901-1934 by Herbert H. Franklin, a newspaper man and part-time inventor, it boasted an aluminum air-cooled engine and a shock-absorbing ash wood frame.[53] Starting off in a small way, the company produced only a few hundred cars during its first few years.[54] Sales, however, did not reach their peak until the 1920's when between seven and ten thousand cars were sold yearly.[55] At that time a company advertisement claimed:

> *Franklin sells more closed cars in production to total output than any other maker in the world. The percentage is more than double the average of the industry--Franklin 75%; the industry 35%.*

Many attribute the car's longevity to the genius of John Wilkinson, the firm's chief engineer. Under his guidance many innovations were made in the car's mechanical components, including the resilient axle, the aluminum alloy connecting rod, the case-hardened crankshaft and the float-feed carburetor.[57] In evaluating the air-cooled motor a contemporary automotive expert observed:

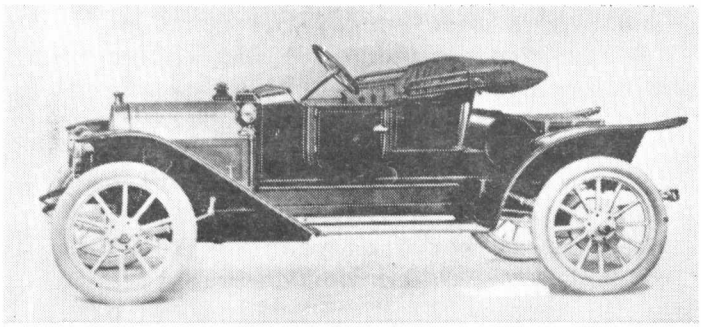
> *Air cooling has been considerable less used in the past few years, and some makers who formerly used air-cooled motors exclusively, have either discarded them entirely or are making both water and air-cooled systems...The Franklin formerly had cast iron fins on the exterior of the cylinders, but they have been replaced with bronze cooling efficiency of five to one as compared with cast iron.*[58]

In fact, the Franklin not only had bronze components but also contained more aluminum parts than any other car then built; it was the lightest of the big luxury cars.[59]

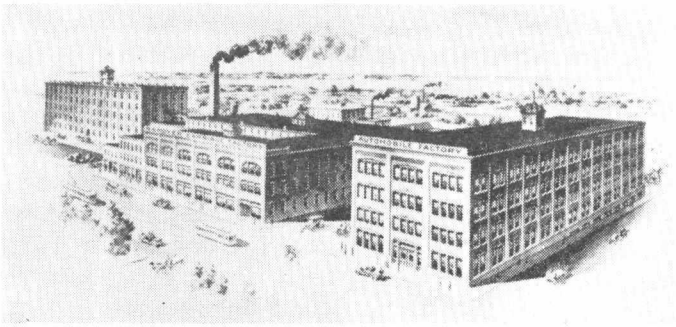
Builders of gas cars and motorcycles, even though moderately successful at first, could not halt the decline of the state's automobile industry. In 1900 the trend in the nation was toward steam with 1,681 steamers being sold compared to 1,575 electrics and 936 gas cars.[60] Sales of steamers, though, declined quickly because these cars had a poor image. Who would chance an explosion from a boiler, sit over a roaring fire, check numerous gauges or wait fifteen to thirty minutes to start?[61] Very few did after 1901, and in consequence the gas car prospered. Bankers also turned away, and, without capital, builders of steam cars could not improve their product and therefore lost the technological race with the gas car. In consequence, producers of steamers in New York and elsewhere failed by the dozens. To survive, these firms needed sales more than anything else. With hostile bankers and an unstable market, only increased production could save them. According to Lawrence Seltzer:

> *The successful producers flourished rapidly...Increases in their output, stimulated both by the rapidly growing general demand and by the cumulative growth in the reputations of particular makes, did not require immediate or large additions to their plants nor to their working capital. The facilities of partsmakers steadily increased; competition among distributors and dealers for the profitable sales rights permitted the continuance of the practice of advance dealer deposits and cash sales...It was in this way that Buick, Ford, Cadillac, Maxwell and Olds and other producers grew.*[62]

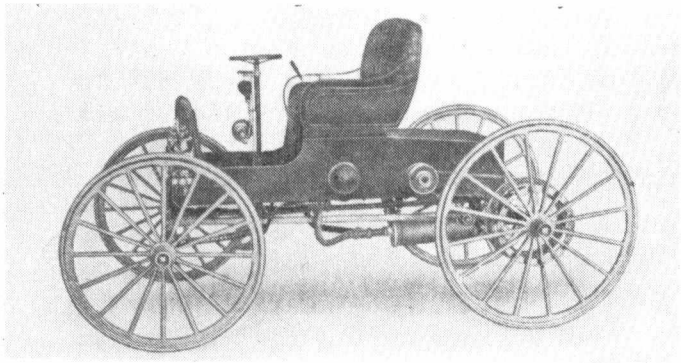
Among the financial combinations in the state, building or about to build automobiles during the years 1899-1901, were the Automobile Company of America, capitalized at five million dollars, and the Manhattan Automobile Company, which was capitalized at $150,000.[63] From 1903 on these combinations no longer existed, because of the competition, and the large investment money was in Michigan and Ohio.



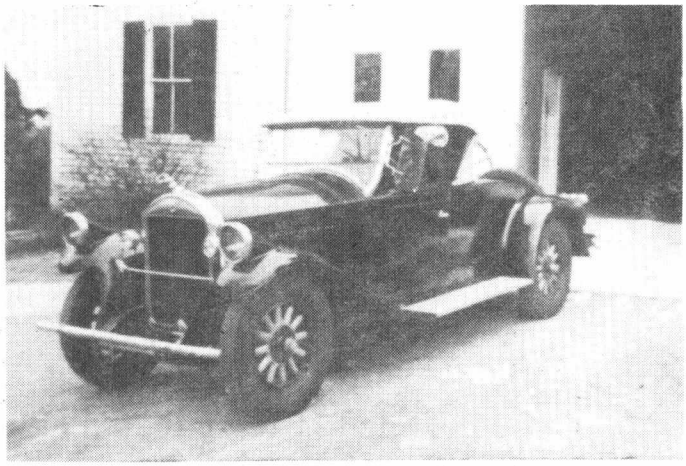
1912 MOYER, MODEL C



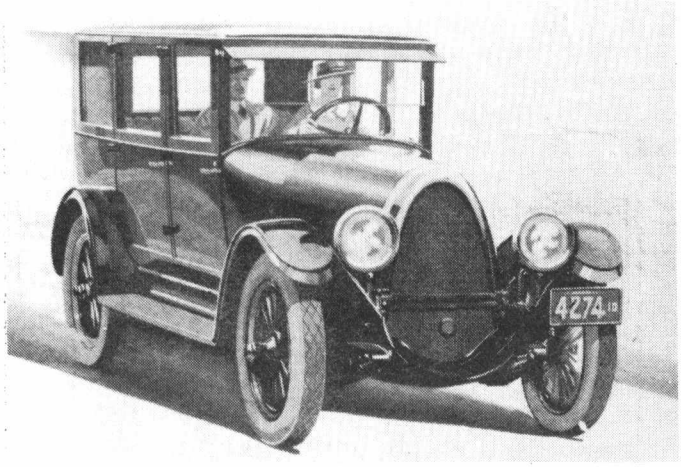
THE H. A. MOYER FACTORY, SYRACUSE



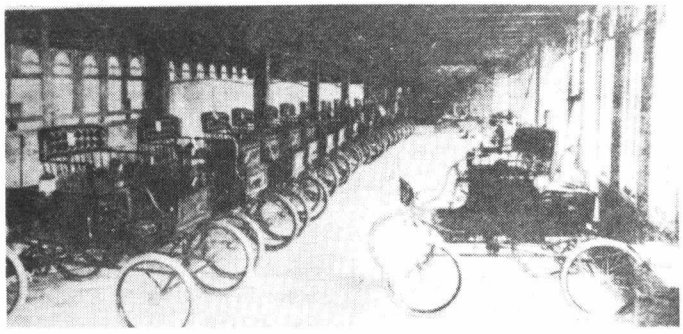
1907 HATFIELD "BUGGYABOUT", MADE BY THE HATFIELD MOTOR VEHICLE COMPANY, CORTLAND



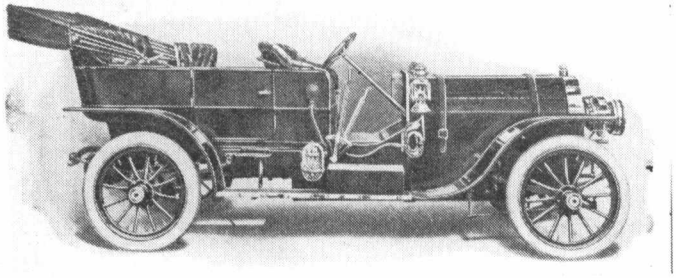
1928 PIERCE-ARROW, MODEL 81



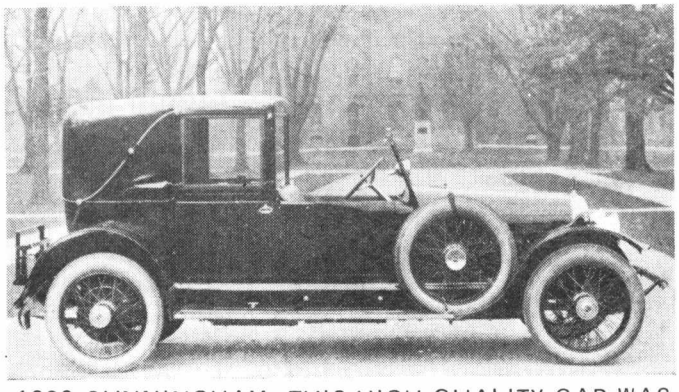
1923 FRANKLIN. THE FRANKLIN WAS MADE BY THE H. H. FRANKLIN COMPANY (LATER FRANKLIN AUTOMOBILE COMPANY) AT SYRACUSE, 1902-34



INTERIOR VIEW OF THE MOBILE STEAMER PLANT AT TARRYTOWN, 1902. THIS FACTORY WAS SOLD TO THE MAXWELL-BRISCOE MOTOR COMPANY IN 1904, AND THE CHEVROLET MOTOR COMPANY ACQUIRED IT IN 1913.



1907 GEARLESS "GREAT SIX". THIS CAR, MADE BY THE GEARLESS TRANSMISSION COMPANY, ROCHESTER (1907-1909) HAD AN ELABORATE FRICTION TRANSMISSION.



1920 CUNNINGHAM. THIS HIGH QUALITY CAR WAS MADE IN ROCHESTER FROM 1908 UNTIL 1936.

A FEW OF THE MANY MAKES OF CARS ONCE PRODUCED IN NEW YORK STATE

Olds, Buick, Carter, Cadillac, Oakland and Elmore were successful ventures incorporated into General Motors by 1909.[64] Ford, incorporated in 1903, was moving toward low priced cars by 1906. In Ohio, the White Company was still a leading builder of steam cars, while Willys, soon to be a big name in low and moderately priced cars, was incorporated as the Toledo Motor Company in 1908. The Cleveland firms of Peerless and Winton were well-known producers of luxury cars and strong competitors of Thomas, Franklin and Pierce. With such successful cars as Olds, Buick, Ford and Cadillac taking a larger part of the market each year New York's manufacturers rapidly lost ground. Thus, the 1900-1903 period was a time of rapid change in finance and public choice affecting the automobile industry in New York.

Strategic location, good transportation facilities and abundant electric power were factors in New York's favor. The state could easily compete with Michigan, Massachusetts and Ohio in these areas. Lawrence Seltzer claims that Michigan had the edge in shipbuilding, engine building, carriage and wagon-making and lumbering.[65] A comparison of the two states reveals that New York led in all these industries except the lumber industry. Economist Donald Moore noted:

> *Michigan is not a particularly large producer of steel, rubber, glass or any other of the raw materials employed in the industry. It is, in fact, a notoriously steel-starved area. Its labor force has largely been recruited from other areas.*[66]

New York City was the largest builder of steam engines during the Nineteenth Century with the center of this activity at the Novelty Iron Works.[67] Buffalo was the home of the huge Buffalo Steam Engine Works incorporated in 1841.[68] Both cities certainly had their share of shipbuilders, chandlers and carriage makers. New York City was also the home of the nation's largest corporations whose transactions were international in scope. The petroleum industry was well-represented by the Standard Oil Company which occupied a large building in downtown Manhattan. It was also the home of the Worthington Corporation, makers of steam pumps. General Electric Corporation had its main office in New York City and one of two factories at Schenectady. The New York Belting and Packing Company, makers of belting, hose and springs, and the A.R. Whitney Steel and Iron Merchants, building contractors, were nationally known.[69] Neither Detroit or Lansing in Michigan nor Cleveland in Ohio could boast of such commercial activity.

With so much in its favor, why then did New York State lose the automobile industry? The answer lies with the state's builders of gas cars who could have kept the industry in New York if they had foresight, business acumen and experience in mass production techniques. George Pierce, Erwin Thomas and Herbert Franklin produced cars for the rich, completely ignoring the vast sales potential in the popularly priced car market. In 1902 the curved dash Oldsmobile sold for $650 F.O.B. Lansing, Michigan, and in 1908 the Model N Ford sold for $600 F.O.B. Detroit.[70] Compare these prices to the 1903 Franklin which sold for $1,300, the 1902 Pierce Motorette, priced at $2,500, while the 1902 Thomas cars were in the $1,200-$1,400 price range.

Low-priced cars drew customers — something the New York manufacturers realized too late. Even if they had gone after this market, failure would have been their lot because they lacked the experience to mass produce cars. According to Ralph Epstein:

> ...*A surprisingly large number* (early auto makers) *had been associated with that pioneer exponent of quantity production R.E. Olds in the Olds Motor Works, between 1898 and 1903, at Detroit and Lansing.*[71]

Epstein is of course talking about Roy D. Chapin of Hudson, C.D. Hastings of Hupp, John D. Maxwell of Maxwell, A.Z. Mitchell of Dodge, Charles B. King of King and several others.[72] When the market shifted from high-priced and high-powered cars to mass-produced low-priced cars, the New York manufactures suffered. Thomas and Selden failed in 1912, Buckmobile and Tuck in 1905, Hewitt and Covert in 1907 and Izzer and Manlius in 1910.[73]

Henry Ford and Ransom Olds, among others, were quite active in Michigan from 1900 on. Donald Moore is quick to point out that many automobile pioneers converged in a popular Detroit bar where financial matters and "new ideas" were discussed.[74] He states "machines were demonstrated, new firms were conceived and ideas flowed as freely as the spirits at the Ponchartrain bar."[75] John B. Rae is also sure that leadership was more important than resources or location as a factor in Michigan's emerging as an automobile center. He claims:

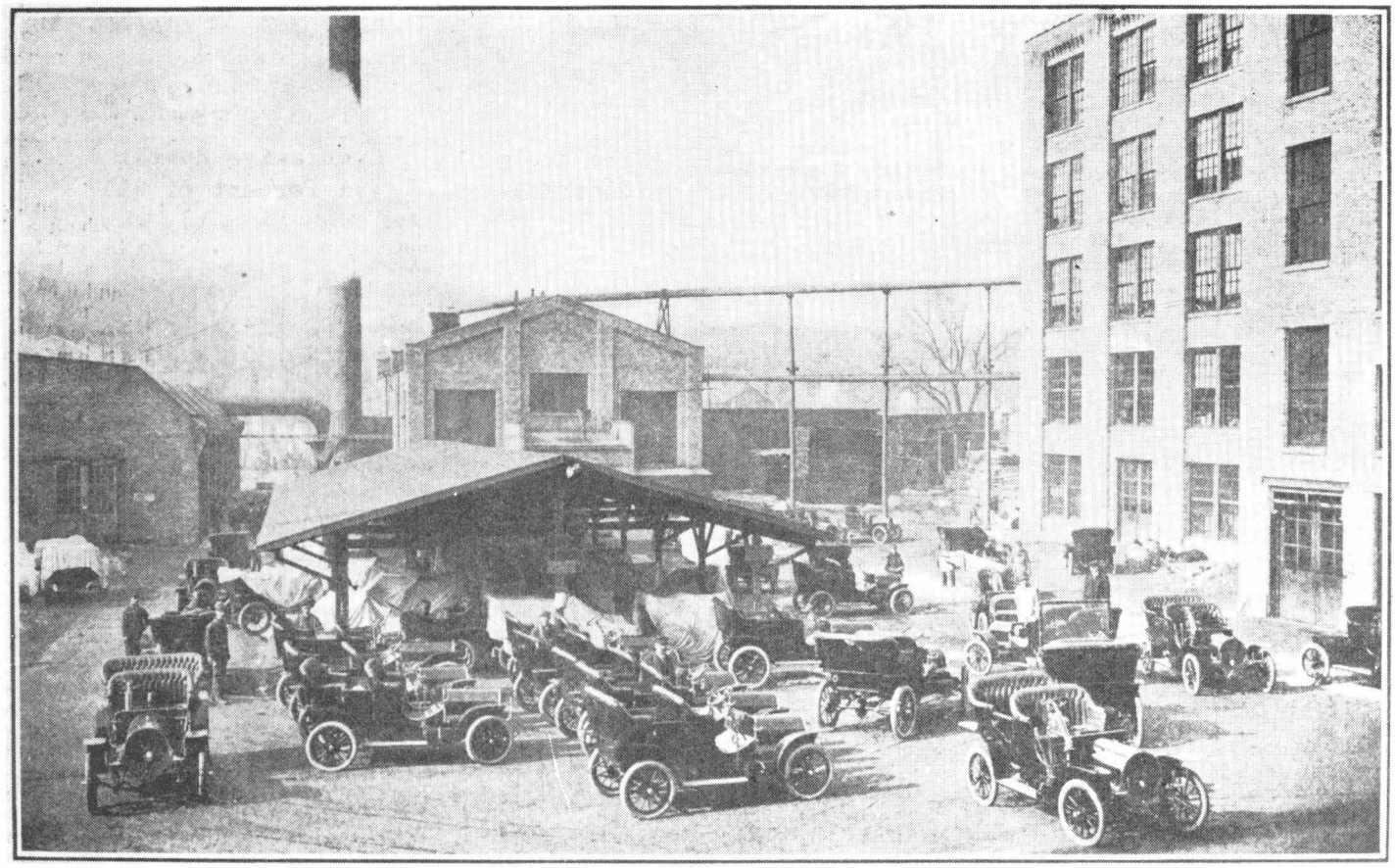
> *It comes down to a matter of men. With due allowance for the influence of economic and geographic forces, Detroit became the capital of the automobile kingdom because it happened to possess a unique group of individuals with both business and technical ability who became interested in the possibilities of the motor vehicle.*[76]

Although it was good fortune for Michigan rather than New York to have such talent, the auto industry still lingered on in the Empire State, but in a small way. A number of firms survived because they made specialized vehicles. The Brewster Company of Long Island City, which operated in this state from 1915-1925, became internationally known for its coachwork and custom-built cars.[77] An early advertisement boasted:

> *The Brewster car, both chassis and body, is essentially custom made. It is highly specialized to meet the demands of urban traffic and social usage. It has the beauty and smartness of a victoria drawn by a stylish pair. And the maximum of smoothness, flexibility and quietness is attained in mechanical performance.*[78]

Few questioned the Brewster's reputation and the company's marque appeared on cars owned by such prominent Americans as Louis Tiffany, Andrew Freedman (owner of the New York Giants), Pierre du Pont and John D. Rockefeller Sr.[79]

There is a long list of firms that built custom cars, assembled cars and cycle cars. The Hatfield, built by the Cortland Car and Carriage Company of Sydney, lasted from 1917-1924. It was distinguished by touring, sports style



The factory yard of the H.H. Franklin company at Syracuse, 1906 (From *The Automobile,* March 15, 1906).

and station wagon type bodies.[80] Among other firms which failed in the period just before and after World War I were Campbell, Liberty, Guy Vaughan, Majestic, Ingram-Hatch, Cotay, Ward and Simplex.[81] The fact that automobiles were still being built in New York during the twenties and thirties indicated that the state offered many advantages to the industry. The Simplex Automobile Company proudly claimed:

> *Every part of the Simplex car down to the smallest nut and bolt, is made in New York City at the Simplex factory. Krupp chrome nickel steel of the highest test is used throughout the construction.*[82]

Several firms even continued to build commercial vehicles until America's entry into World War I and included the Chase Motor Truck Company of Syracuse, the Atterbury Motor Car Company of Buffalo and the Knickerbocker Motor Truck Company of New York City.[83] Losing the lead to Detroit had not completely ended automobile or truck manufacturing in New York State. Obviously there still was sufficient capital available along with growing sales to maintain several older firms which produced specialty and luxury vehicles. The depression, though, finally put an end to these firms.

---

1. Gardner D. Hiscox, *Horseless Vehicles, Automobiles, Motorcycles* operated by hydrocarbon, electric and pneumatic motors (New York: Norman D. Hendley, 1900), pp. 453-455; several automobile firms were merely agents for foreign producers and are not counted with those that actually made cars.
2. *Ward's Automotive Yearbook*, 32nd edition (Detroit: Ward's Communications, 1971), p. 544; John G. Glover, William B. Cornell, *The Development of American Industries—Their Economic Influence* (New York: Prentice-Hall, 1932), p. 642; Alfred D. Chandler, *Giant Enterprise, Ford, General Motors and the Automobile Industry* (New York: Harcourt, Brace and World, 1964), p. 10; In 1900 and 1901 John Brisben Walker was building more than 90 carriages a week at Tarrytown. Century and Stearns, two Syracuse firms, were each turning out more than 300 vehicles yearly. The Rochester Cycle Company and the Foster Company, both of Rochester, were probably making the same number. At this time the only large out of state producers were R.E. Olds who made 500 cars in Michigan, Amzi Lorenzo Barber who made nearly a thousand Locomobiles in Connecticut and the Pope Manufacturing Company which was reorganized into the Columbia Automobile Company in Connecticut. It made several hundred electrics.
3. D.W. Meining, "Elaboration and Change, 1850's-1960's", in John Thompson (ed.), *Geography of New York State* (New York: Syracuse University Press, 1966), p. 181.
4. Automobile Manufacturers Association, *Automobiles of America* (Detroit: Wayne State Univ. Press, 1968), p. 252; Census of Manufactures, *Automobiles and Bicycles and Tricycles, 1905* (Washington, D. C.: Bureau of the Census, 1907), Bulletin 66.
5. Frank Hill, Alan Nevins, *Ford, The Times, The Man, The Company* (New York: Charles Scribners, 1954), p. 172.
6. *Automobiles of America*, p. 12.
7. *Horseless Age*, Vol. IV (April 26, 1899), p. 9; William Greenleaf, *Monopoly on Wheels* (Detroit: Wayne State Univ. Press, 1961), p. 63.
8. Victor S. Clark, *A History of Manufactures in the United States* 2 Vols., (New York: Peter Smith 1949) I, p. 158.
9. D.W. Meinig, *Geography of New York State*, p. 178.
10. Ibid.
11. New York Writers Project, *A Guide to the Empire State*, 8th edition (New York: Oxford Univ. Press, 1940), p. 210.
12. Hiscox, *Horseless Vehicles, Automobiles, Motorcycles*, pp. 453-455; Charles W. Bishop, "The Automobiles of New York," *The Bulb Horn*, Vol. XII (July, 1951), p. 25.
13. G.N. Georgano, *The Complete Encyclopaedia of Motorcars* 1885-1968 (London: Ebury Press, 1968), p. 315.
14. Ibid., pp. 230, 484; *Horseless Age*, Vol. IV (April 26, 1899), p. 9.
15. *Floyd Clymer's Historical Motor Scrapbook, Steam Car Edition* (Los Angeles: Clymer Publications, 1951), p. 17.
16. Thomas Derr, *The Modern Steam Car and Its Background* (Los Angeles: Clymer Publications, 1949), p. 53.
17. Ibid.
18. *Horseless Age*, Vol. VI (April 18, 1900), p. 25.
19. *Mobile Company of America 1900 brochure* (Tarrytown, N.Y.: Mobile Company of America, 1900), p. 2.
20. Ibid., pp. 3-5.
21. Ibid., 1903 brochure, p. 7.
22. Ibid.; Tarrytown *Press-Record*, Aug. 3, 1901, p. 3.
23. *Mobile Company of America*, 1900 brochure, p. 9.
24. Ibid., p. 10.
25. Ibid., 1903 brochure, pp. 9-12.
26. Poughkeepsie *Eagle*, January 3, 1941, p. 6.
27. Ibid.
28. Ibid.; *The Lane Automobiles, 1903* (Poughkeepsie, New York: Lane Motor Vehicle Company, 1903), p. 14.
29. *The Lane Automobiles, 1903*, pp. 3-5.
30. *Motor's 1907 Motor Car Directory* (New York: Motor Magazine 1907), pp. 11-12.
31. The New York *Tribune*, January 28, 1900, p. 5.
32. *Clymer's Scrapbook, Steam Car Edition*, p. 48.
33. Ibid.; *Horseless Age*, Vol. XII (June 25, 1903), p. 167.
34. Georgano, *Encyclopedia of Motorcars*, p. 230.
35. Syracuse *Post-Standard*, August 26, 1900, p. 4; *Stearns Steam Carriages* 1900 Models (Syracuse: Stearns Steam Carriage Company, 1903), pp. 4-10.
36. *Stearns Steam Carriages*, 1903 Models, pp. 4-10.
37. Felicien Michotte, "The Electric Automobile," *Automobile*, Vol. I (November, 1899), p. 186.
38. Ibid.; *Horseless Age*, Vol. XVI (November 1, 1905), p. 499.
39. Clark, *History of Manufactures in the United States* I, p. 159; William Greenleaf, *Monopoly on Wheels* (Detroit: Wayne State University Press, 1961), p. 71.

40. Georgano, *Encyclopedia of Motorcars*, pp. 67, 102, 319.
41. Maurice D. Hendry, *Pierce Arrow - First Among America's Finest* (New York: Ballantine Books, 1971), p. 15.
42. Ibid., p. 29.
43. Ibid.
44. Georgano, *Encyclopedia of Motorcars*, p. 449; William Accisano, "The Magnificent Machine," *Antique Automobile*, Vol. XXXVIII (May-June, 1974), pp. 18-20.
45. National Automobile Chamber of Commerce, *Automobile Handbook*, 1914 (New York: N.A.C.C., 1914), pp. 68-77; "Price Classification of Motor Cars for 1918", compiled by the *Scientific American*, reprint (Los Angeles: Clymer Pub., 1950), p. 2.
46. Maurice D. Hendry, "Thomas," *Automobile Quarterly*, Vol. VIII (Summer, 1970), p. 418; Richard Hough, L.J.K. Setright, *A History of the World's Motorcycles* (New York: Harper and Row, 1970), p. 36; Erwin Thomas is credited with making the first successful gasoline-powered motorcycle in the United States.
47. Hendry, *Automobile Quarterly*, Vol. VIII, p. 418.
48. *Horseless Age*, Vol. XIII (January 13, 1904), pp. 44-45; "New Thomas Runabout," Ibid. Vol. XVII (May 23, 1906) p. 740; "Thomas Automobiles," advertisement reprinted in *Cars and Parts*, Vol. XIV (February, 1971), p. 69.
49. *Horseless Age*, Vol. XVII (May 23, 1906), p. 740; Association of Licensed Automobile Manufacturers, *Handbook of Gasoline Automobiles*, 1909 (New York: A.L.A.M., 1909), pp. 127-132.
50. *Automobiles of America*, p. 45; *The Story of the New York to Paris Race* reprint (Los Angeles: Clymer Publications 1951), pp. 64-65.
51. George Schuster to the Hartford Suspension Co., August 21, 1908, *The Story of the New York to Paris Race*, p. 68.
52. Hendry, *Automobile Quarterly*, Vol. VIII, p. 432.
53. Thomas Hubbard, "The Case for Franklin", *Automobile Quarterly*, Vol. V (Winter, 1967), p. 228.
54. Ibid.
55. *Automotive News, 1972 Almanac*, 36th Review and Reference edition, April 24, 1972, p. 24.
56. "Franklin Closed Cars," advertisement printed in *The National Geographic Magazine* Vol. XLIV (Oct. 1923), p. 463.
57. Hubbard, *Automotive Quarterly*, Vol. V, p. 235.
58. Oscar C. Schmidt (ed.), *Practical Treatise on Automobiles*, 2 vols., (Philadelphia: The American Textbook Company 1911), I, p. 63.
59. Ibid.
60. *Automobiles and Bicycles and Tricycles*, Bulletin 66; Gary Levine, *The Car Solution, The Steam Engine Comes of Age* (New York: Horizon Press, 1974), p. 78.
61. Steam cars were actually safe. Boiler explosions were extremely rare among the thousands of steamers built. A tragic history of death by fire and explosion associated with large stationary and marine engines was taken for granted by the public. This fear was transferred to the steam car.
62. Lawrence Seltzer, *A Financial History of the American Automobile Industry* (Boston: Houghton Mifflin 1928) p. 26.
63. James Doolittle, *The Romance of the Automobile Industry* (New York: Klebold Press, 1916), p. 289.
64. Ibid., pp. 293-294; Chandler, *Giant Enterprise*, pp. 11-12; Arthur Pound, *The Turning Wheel* (New York: Doubleday Doran, 1934), p. 490.
65. Seltzer, *A Financial History of the Automobile Industry*, pp. 28-29.
66. Donald A. Moore, "The Automobile Industry," in Walter Adams (ed.), *The Structure of American Industry* (New York: Macmillan Company, 1954), p. 293.
67. John H. Morrison, *History of American Steam Navigation* (New York: Argosy-Antiquarian Ltd., 1967), pp. 52-53; Carroll W. Pursell Jr., *Early Stationary Steam Engines in America* (Washington, D. C.: Smithsonian Institution Press, 1969), pp. 27, 119: A contemporary observer described the Novelty Works as "an immense establishment in which were carried on all the different branches and operations in any way connected with making stoves, steam engines, boilers and almost every other article of large machinery, and even steamboats."
68. *New York--A Guide to the Empire State*, p. 210.
69. Moses King, *King's Handbook of New York City*, 2nd edition (New York: Moses King, 1892), pp. 922,927,929,982.
70. *Ford Motor Cars*, 1908 reprint (Los Angeles: Clymer Publications, 1951) p. 24; Niemeyer, *The Automotive Career of Ransom E. Olds.*, p. 34.
71. Ralph C. Epstein, "Leadership in the Automobile Industry", 1903-1924, *Harvard Business Review*, Vol. V (April, 1927), p. 288.
72. Ibid.; B.C. Forbes, O.D. Foster, *Automotive Giants of America* (New York: B.C. Forbes Publishing Company, 1926), pp. 20-22, pp. 114-115.
73. Charles Bishop, "The Automobiles of New York," *The Bulb Horn*, Vol. XIII (July, 1951), pp. 8-10; "Motor's Historical Table of the American Motor Car Industry," *Motor*, Vol. XI (March, 1909), pp. 36-42; Georgano, *Encyclopedia of Motorcars*, pp. 103, 274, 301, 509, 564; Thomas made a small number of custom built cars until 1919. Edward R. Hewitt originally founded his operation in England building the Adams-Hewitt car. The firm eventually merged with the International Motor Company which made the Mack truck.
74. Donald C. Moore, *The Structure of America*, p. 293.
75. Ibid.
76. John B. Rae, *The American Automobile Manufacturers, Their First Forty Years* (Philadelphia: Chilton, 1959) p. 59.
77. Hugo Pfau, "The Automobiles by Brewster," *Cars and Parts*, Vol. XIV (June, 1971), p. 85; Charles W. Bishop, *Bulb Horn*, Vol. XII (July, 1951), p. 10; Ted Burness, *Cars of the Early Twenties* (Philadelphia: Chilton Book Company, 1968), p. 3.
78. "Brewster Cars, 1922" advertisement reprinted in *Cars and Parts*, Vol. XIV (June, 1971), p. 89.
79. Hugo Pfau, "Brewster and Company, New York," Ibid., Vol. XIV (July, 1971), p. 86; The company eventually merged with Rolls Royce of America, Inc., which maintained a factory and office in Springfield, Massachusetts.
80. Georgano, *Encyclopedia of Motorcars*, p. 268.
81. Ibid., pp. 145, 260, 295, 344, 595; "Price Classifications of Motorcars for 1918," p. 2; Richard W. Langworth, "A Nautical Crane Simplex by Holbrook," *Automobile Quarterly* Vol. XI (Fourth Quarter, 1973) pp. 442-443; Charles Bishop, "The Automobiles of New York," *The Bulb Horn*, Vol. XIII (July, 1951), p. 10. Charles Bishop's *The Automobiles of New York* has been published by The Society of Automotive Historians in 1976.
82. "1910 Simples advertisement", reprinted in *Floyd Clymer's Historical Motor Scrapbook, No. 9* (Los Angeles: Clymer Publications, 1950), p. 97; The Simplex was a luxurious car built first by the Smith-Mabley Company of New York City and later bought out by millionaire Herman Broesel of New Brunswick, New Jersey. His interests were in turn acquired by the Manhattan firm of Goodrich, Lockhart and Smith in 1913. The New York City factory was abandoned in 1914.
83. *The Commercial Vehicle*, Vol. VII (February, 1912), p. 40.

AUTOMOBILE BODIES BY

THE SAFETY BUGGY COMPANY

The Safety Buggy Company, of Lancaster, Pennsylvania, was in business from 1894 until 1907. For the first seven years the company made a patented buggy, and then built wooden automobile bodies for seven more years. The firm was chartered on September 4, 1894, to manufacture a buggy invented by Alfred H. Worrest. Dr. M. L. Herr was president of the firm; W. F. Lebzelter was treasurer; and Worrest was general manager. The organization had a paid-in capital of $44,000. Production was carried on in a four-story brick factory at the corner of Elizabeth Street and Juliette Avenue in Lancaster.

In 1896 Byron G. Dodge succeeded Dr. Herr as president, and by 1900 he had become sole owner of the Safety Buggy Company. Following Worrest's resignation as general manager, Dodge prepared to enter the young automobile industry. After some experiments with design and construction, the company began producing automobile bodies for the Autocar Company, Ardmore, Pennsylvania, in 1901. Autocar built 130 cars that year; the number which had bodies by Safety Buggy is unknown. Autocar was the company's major customer during its seven years as an auto body builder. Throughout its career the Safety Buggy Company manufactured wooden bodies. Six weeks to two months was required to complete each body, but the size of the Elizabeth Street plant permitted the production of a great many bodies at one time.

While producing bodies for Autocar, Safety Buggy also made bodies for the Peerless Motor Car Company of Cleveland and the Packard Motor Car Company of Warren, Ohio, which moved to Detroit in 1903. Few bodies were supplied to Packard, for the last Packard with wooden body was the Model F, discontinued in 1904.

Peerless manufactured 1,176 automobiles between 1903 and 1906. They offered both a "King of Belgium" body of aluminum sheet construction built by Quimby,of Newark, New Jersey, and a "Belgium" body similar in line, made of wood. The wooden body, made by Safety Buggy, was slightly heavier than the aluminum body, but was advertised as having the same quality in finish and upholstery. By 1905 Peerless had turned almost exclusively to aluminum bodies, and the Safety Buggy Company lost another customer.

Autocar produced 3,794 automobiles between 1903 and 1906. Safety Buggy must have supplied a great many of the bodies, for employment at the body factory was increased from 74 workmen in April, 1902, to 150 in the summer of 1903. B. G. Dodge's son, Leon, became superintendent of works because the senior Dodge, who was also manager of the Lancaster Cork Works, could no longer devote enough time to the firm's affairs.

At first Safety Buggy supplied virtually all body parts to Autocar. For example, the 1905 Autocar Type XI 4-cylinder car had a wooden side entrance touring body with detachable tonneau. The mudguards and dashboard of laminated wood were also supplied by Safety Buggy. By 1907 work for Autocar was on the wane, in part because of Autocar's concentration on higher priced cars had resulted in a sales decline, and in part because Safety Buggy supplied fewer parts of the body. In December, 1906, Autocar advanced from laminated wood mudguards to ones made of sheet metal.

Safety Buggy sought new contracts with other firms to keep the factory running at capacity. In early 1906 the firm began supplying bodies to the Chalfant Motor Car Company of Lenover, Pennsylvania. Chalfant probably purchased fewer than 20 bodies during 1906 and 1907, for the Chalfant was an underpowered 2-cylinder machine which found few buyers. Chalfant chasses were brought to Lancaster by train, and were towed up North Queen Street by teams of horses. After fitting of the bodies the cars were driven back to the station and shipped back to Lenover.

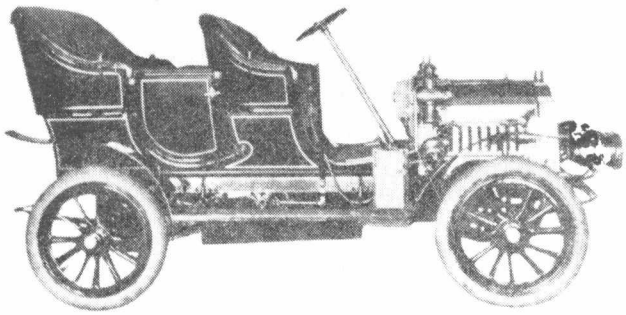
In 1907 the company secured a much larger contract, to supply bodies to the Dragon Automobile Company of Philadelphia. Safety Buggy may have built in excess of 300 bodies for Dragon during 1907. Late in the summer of 1907 the firm arranged to supply bodies to the Imperial Motor Car Company of Williamsport, Pennsylvania. It is probable that only five Safety Buggy bodies were shipped to the Imperial company before that firm turned to the Reading Metal Body Company.

Affairs at the Safety Buggy Company reached a crisis in the fall of 1907. The wooden body was on its way out, and the company found it expedient to convert to the manufacture of metal bodies on wooden frames. Such a conversion required a substantial capital investment in new equipment and supplies. Just when conversion had become vital to the continued success of the company, the financial crisis known as the "Panic of 1907" made itself evident in Lancaster. The Safety Buggy Company found itself with $15,000 in bills, with no way of paying them. Work in the factory was suspended in late October.

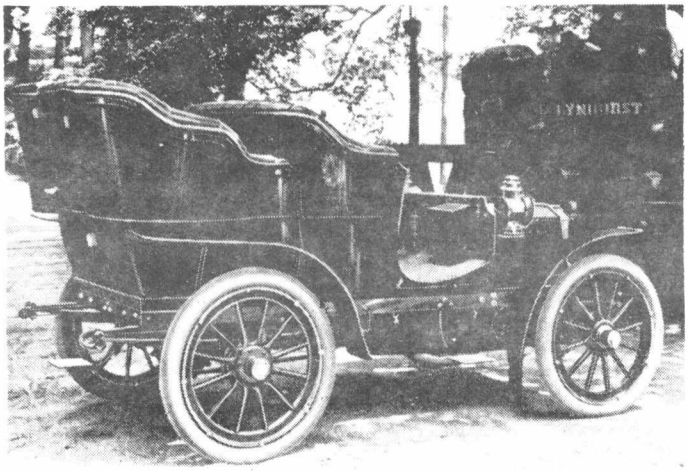
Byron G. Dodge attributed the problem to the "stringency of the money market and a lack of working capital". Dodge found it increasingly difficult to collect payment on the firm's outstanding accounts. As one example, the Dragon Automobile Company had been in serious financial trouble since August, 1907, and was no doubt far behind in paying its bill. On October 28, 1907, Dodge made a deed of assessment for the benefit

of the creditors of the firm. Given the adverse financial situation and the necessity of converting the manufacturing facilities to make metal-paneled bodies, he thought it wise to liquidate his holdings in the Safety Buggy Company. At the time the creditors took over the company there were said to be $40,000 worth of orders on the company books. Some of these orders were filled before the factory was closed in early 1908 and the Safety Buggy Company liquidated, a victim of failure to react promptly to rapid change in the early automobile industry.

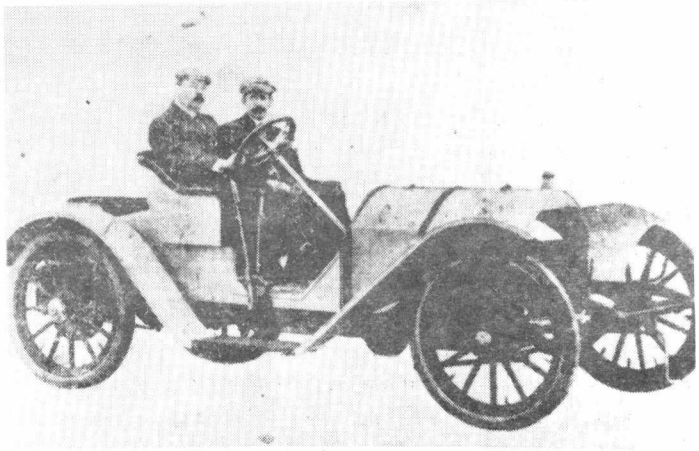
by Donald J. Summar



1906 Chalfant Model C with Safety Buggy side entrance touring body. (Courtesy of Free Library of Philadelphia)



A 1903 Autocar Type VIII with rear entrance tonneau body built by the Safety Buggy Company.
(From author's collection)



1908 Imperial, one of five completed in October, 1907, with sporty roadster body made in Lancaster. The men in the car are officials of the Imperial company.
(From author's collection)

This factory, constructed in 1893, was fully occupied with automobile body work from 1901 to 1907.
(Courtesy of Lancaster County Historical Society)

The After Life of the Argonne

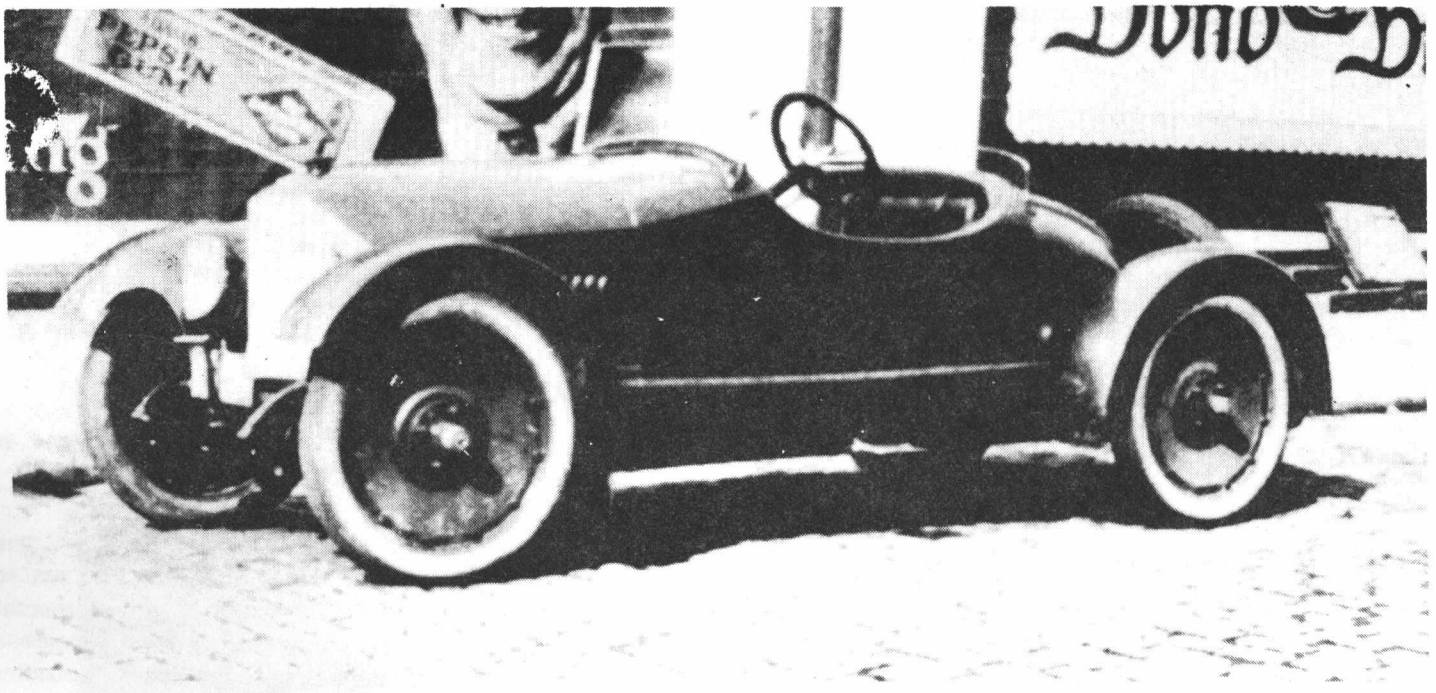
by Fred Roe

The original life of the Argonne was quite carefully described in an article by Marshall Naul in the first issue of Automotive History Review. In that excellent biography of the make the final disposition of the remains of the company created a bit of a mystery, as the buyers at the receiver's sale were reported to be Brisk and Beckelman of 31st Street in Manhattan, and on investigation this turned out to be a firm of dress manufacturers. So we have the intriguing question - why should a firm of dress manufacturers buy the remains of a tiny auto company?

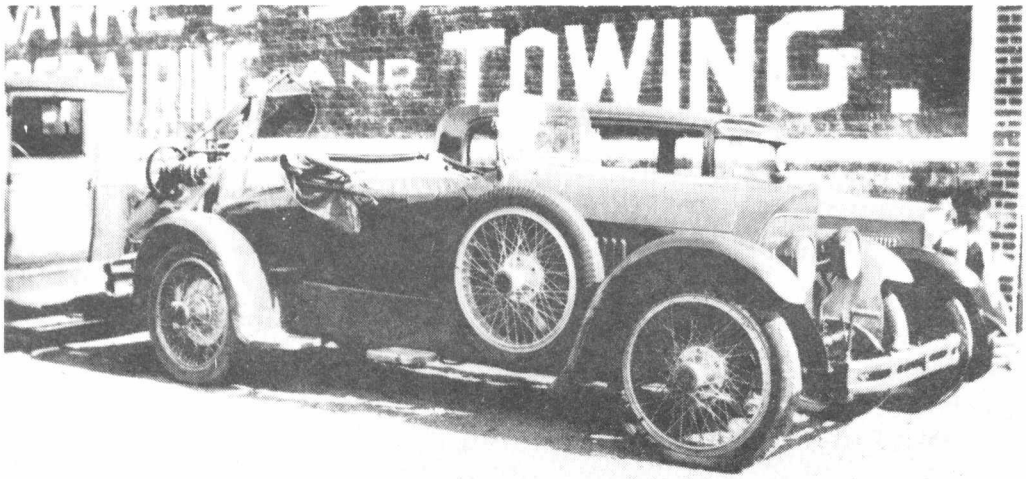
The answer seems to be contained in the information Hayden Shepley obtained from an interview with a former chauffeur. This gentleman had worked for a Mr. Bastin who may have been in the clothing business at 181 Park Avenue in New York. Mr. Bastin had bought the contents of a warehouse containing Duesenberg engines and parts. The seller was a Mr. Beckman "who owned the clothing business that bought out the Argonne". Read Beckelman here for Beckman, which I think is a perfectly reasonable assumption, and the link to the previous Argonne operation becomes apparent.

Now Mr. Bastin also ran a garage, which may have been owned by Mr. Beck(el)man, known as Dolan's Towing Service. Mr. Bastin began the assembly of cars from his supply of parts, in a building on Garrad Avenue where either Owen Magnetics, Palmer-Singers or Biddles had been assembled before. There were about ten cars made before Mr. Bastin had to quit the business because of his health. Some were sold in Boston. There were sedans "patterned after Dodge Taxicabs", and at least one coupe. Besides the Rochester-Duesenberg engines, components included Timken rear ends, 4-speed Brown and Lipe transmissions, Bork and Beck clutches and Houk wheels. The bodies were hand built of aluminum by the Harvard Body Company in the Bronx.

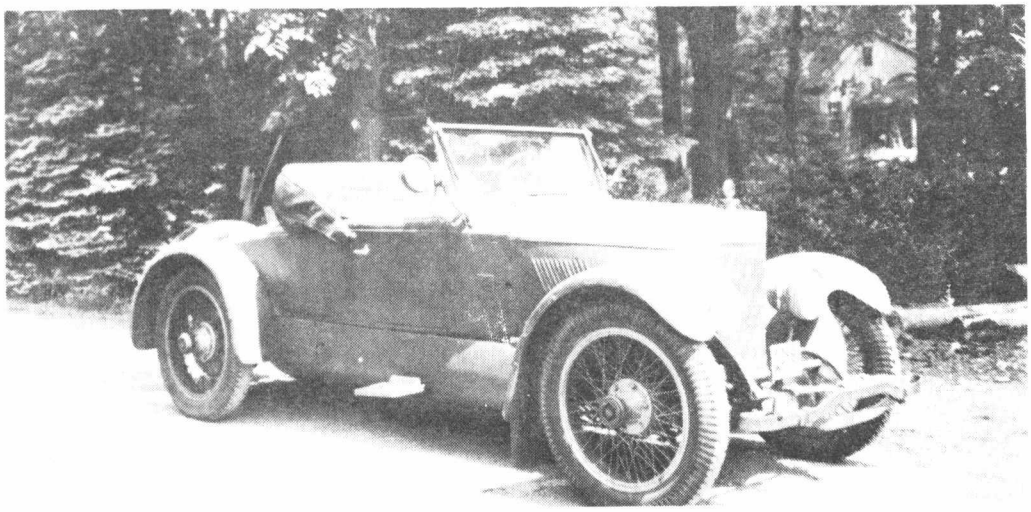
This information from Mr. Kappell, the chauffeur, seems to be substantial enough to confirm that there was indeed an after life for the Argonne, and the story of these anonymous undocumented cars might easily end again right here. But another lucky circumstance allows us to present photos of not one but three cars which may have been products of this enterprise, and one of the three is still in existence in a collection where all can see it. For these photos we have to thank Smith Hempstone Oliver, former curator of the Smithsonian Institute Collection, who in his youth prowled the streets of Brooklyn and Newport, and points in between, with his camera ready to record any exceptional cars he ran across, and who subsequently allowed them to be published in *The Bulb Horn* about 15 years ago. These photos follow here, one each of what Hemp recorded as an Argonne, a Biddle, and a Singer. With each photo is my caption and discussion of the reasoning which leads to their possible association with the after life of the Argonne rather than with the makes their names represent.



THE PRODUCTION ARGONNE - All 24 original Argonnes were roadsters. The severely pointed angular contours of the radiator used are clearly shown in this photo. Disc or wire wheels were optional, and the wheelbase was 119 inches.



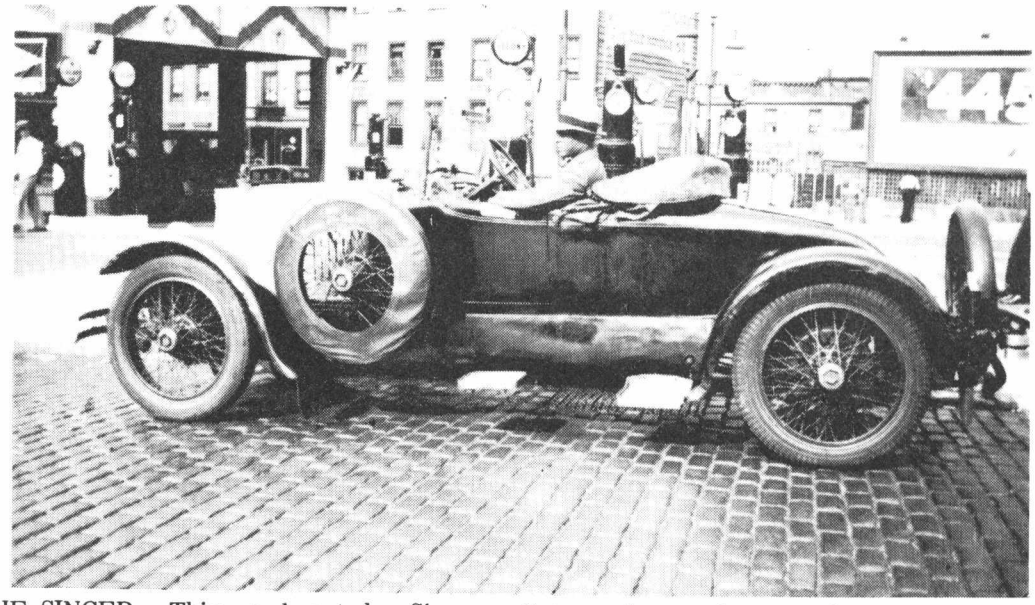
THE ARGONNE - Hemp Oliver's photo shows this car on a used car lot in Brooklyn in 1933. He saw the engine and is certain that it was a Rochester-Duesenberg. The car's identification was made from the Motometer, which carried the Argonne badge, the name superimposed vertically on a stylised evergreen tree. In fact, the Argonne Motometer is common to all three of these cars. Likewise the radiator design, which is identical to that of the Singer car, made in New York from 1916 to 1920 or so. Elsewhere in this article we show a photo of a production Argonne which used another style of vee radiator much like that of the Austro-Daimler. Other differences between this car and the standard Argonne are its larger size overall and the 35 x 5 Houk wheels as opposed to the 32 x 4 wheels of the standard car.



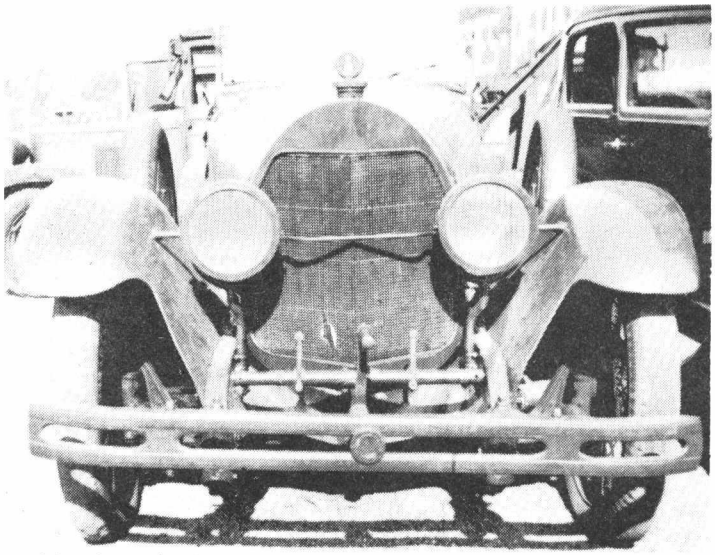
THE BIDDLE - This handsome roadster is still with us, and may be visited at Harrah's in Reno. It first came to light in the summer of 1943 when it was bought from an estate in or near Red Bank, New Jersey. It passed through several hands before reaching the collection of Cameron Peck. When his collection was broken up the car was bought by E. S. Hansen, and was used extensively by him including participation in the first Anglo-American tour, known then, as it still is, as a Biddle.

There are strong indications, however, that the identification is incorrect. The specifications of the car do not conform in any way to those of any production Biddle model. Its wheelbase is 128 inches, seven or eight inches longer than either the Biddle Model K of 1918 (which did use a genuine Duesenberg engine) or the postwar Model B-1, and three inches longer than the B-5, built in the postwar years for larger formal bodies. No postwar Biddle was catalogued with the Rochester-Duesenberg engine. All Biddles had 32 x 4 tires on wheels which, if wire, were of Rudge-Whitworth pattern. Biddle radiators, while vee-d, were of an elegant shape not quite like any other. This car has the Singer radiator and 35 x 5 tires on Houk wheels.

The most significant facts which relate this car to the Argonne story are that its body was built by the Harvard Body Company and that it was registered as an Argonne before 1943. I can document this assertion as I have a letter from the man who bought it from the estate. I saw and drove this car shortly after it was brought to light, and had been told of it by the late Sam Baily who christened it a Biddle because it says Biddle on the transmission cover, and this I can also document.

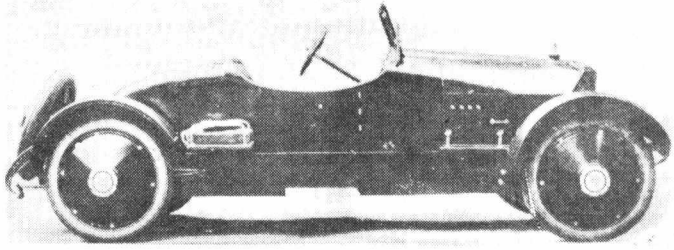


THE SINGER - This car boasted a Singer radiator and nameplate, an Argonne Motometer, three spare wheels in three different locations, a Duesenberg emblem and a Brooklyn script on the radiator core, a Rochester-Duesenberg engine, and fabric spare tire covers which proclaimed, "Rochester-Duesenberg, The Power of the Hour". In all respects it is identical to the car pictured as an Argonne, and was also photographed in Brooklyn. Why, then, do I place it in the category of after-life Argonnes instead of allowing it to rest in peace as a Singer ? Because just as no Biddle was catalogued with a Rochester-Duesenberg engine, neither was any Singer; because all Singers had very long cantilever springs which were either exposed or covered by a characteristically formed rocker panel, and because of its general appearance of being identical, except for details, to the Argonne.



This frontal view, taken by Hemp Oliver, clearly shows the pattern of the Singer radiator on the Argonne he found in Brooklyn.

These three cars have several things in common which make them seem to be related to each other more than they are related to the usual cars which carry the three names of Argonne, Biddle, and Singer. The fact that they do not resemble their namesakes appears to me to be a telling point in relating them to a common ancestry. All three of these makes were products of the New York City area; all failed in 1920-22; and as a result parts stocks from all may have been floating around afterward. This could explain the Singer radiators, the Biddle transmission, and the apparent similarities in other details. Perhaps all three were products of the Bastin enterprise, but they may have been built by some similar informal assembler. But the fact that we know that there was a sale of left-over Argonne material, and that parts had been ordered for a new style Argonne with Duesenberg engine which was to be bigger and heavier than the original, and on a 128 inch wheelbase, makes it seem fairly reasonable to assume that these three cars may have come from the after-life of the Argonne.



THE PROTOTYPE ARGONNE - This side view of the original Argonne prototype of 1918 clearly shows the Schutte wheel discs and one of the pull-out seats.

Bits and pieces for this story have been obtained from many people. I appreciate and credit the help of SAH members Ralph Dunwoodie, Stan Yost, Hayden Shepley, Don Summar, Keith Marvin and Marshall Naul. Material in the files of the Automobile Reference Collection, Free Library of Philadelphia, and the National Automotive History Collection at the Detroit Public Library, photos from Smith Hempstone Oliver, and help from the late Sam Baily is also acknowledged.

INDEX OF AUTOMOTIVE HISTORY REVIEW - Issues 1-6

Society of Automotive Historians, Inc.
G. Brigham

CLASSIFICATION: I - Auto Articles & Items

CLASSIFICATION: II - Auto Pictures & Ads & Plants

CLASSIFICATION: II - Auto Pictures & Ads & Plants

Continued on next page

CLASSIFICATION: II - Auto Pictures & Ads & Plants

CLASSIFICATION: III - People in Automotive History

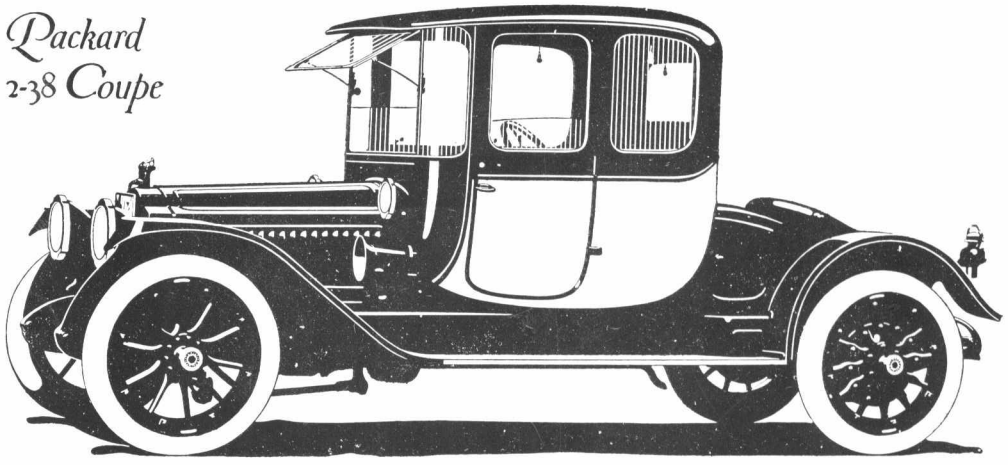
CLASSIFICATION IV - Pictures of People in Industry

CLASSIFICATION V - SAH Members & Their Views

P 605

ALL works of taste must bear a price in proportion to the skill, time, expense and risk attending their invention and manufacture. Those things called dear are, when justly estimated, the cheapest. They are attended with much less profit to the artist than those which everybody calls cheap. A disposition for cheapness and not for excellence of workmanship is the most frequent and certain cause of the decay and destruction of arts and manufactures. —RUSKIN

Packard
2-38 Coupe



Ask the man who owns one

PACKARD · MOTOR · CAR · COMPANY · DETROIT