



# NEWSLETTER

ISSUE NO. 33

JANUARY 1974

## The Society of Automotive Historians

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### PRESIDENT'S PARAGRAPHS

The words this issue are words of encouragement and enthusiasm. I've received many fine letters from members around the world, quite literally. I am deeply grateful for the kind words and offers of participation. As I have stated in the past, my "bag" is our Society roster of world-wide automobiles, and it continues to be so. We now have a universal sheet worked up for roster pages and it has been sent to interested individuals for their comments. By early spring I hope to have it finalized and ready for any members who wish to knuckle down on this nearly impossible task. There will be, I should say there are, members in Europe who have volunteered to work in their sections.

I want to keep the truck and passenger cars apart here in the States for easier operation. All passenger types will go in the automobile roster including taxicabs and funeral types. The Canadian list can have them all together as the sheets will accomodate commercial or pleasure vehicles. Those that have vehicle names with no verification of any kind can send them to Frank Snyder in Arizona. He will correlate these and together we will get something going on that end. There are many of these and periodically there will be a few sent to the Newsletter for help from the membership at large.

It isn't too late to get on the working detail, if you so desire. Just let me know and we'll find something for you to do.

Dick Brigham expects the first issue of the new magazine to be out for spring. One will follow in the summer and one next fall. Marshall has moved to the grand and glorious Midwest and has not lost a stroke on the Newsletter. Communications are good and between Fred Roe and Frank Snyder, the two thousand and some miles in between are fairly buzzing with activity. Let's swamp Marshall with some good stuff and give us all a chance to either chew on it or to shoot it down. Dig, Dig, Dig!

Stan Yost

Editor: As Stan mentions, I have moved from Delaware and am now a resident of Ohio. My address, until June, is

123A Andover Road, Heath, Ohio 43055

There are some "left-over" items which members have sent in during the last month which would not easily fit in this issue. Please do not feel neglected, as they will find a spot in the next issue. From the standpoint of the composer of these pages, it is comforting to have a little more material of this sort on hand for the next issue. It certainly helps to speed up getting a copy together, rather than having to look around for items to complete a page, or even several pages.

From Bill Lewis, 600 Kiama St., Anaheim, Cal. 92802:

Regarding one of the Roster names on p. 9 of Newsletter No.31, the ALMA Steamer was not an automobile. It was an engine development to convert gasoline cars and trucks.

I was in the factory in 1938 and have a factory catalog of the project which was the work of one George Stevenson. I also have some correspondence from Mr. Stevenson about the project, dated 1945. ... The Alma opposed 8 cyl. steam engine, according to its designer, never received any tests other than a few preliminary runs on a test stand in the shop. It was a double-acting, opposed engine of 2" x 1" bore x stroke. It was, in fact, four small two-cylinder engines geared to a central mainshaft, equipped with inside admission piston valves. The engine was 2 feet long, 2½ feet wide and a foot deep, intended to run on steam of about 750 psi, superheated to about 750°F. and develop about 120 HP. (This paragraph is a direct quote from Stevenson to me.)

The factory was a small shop in the back end of the building which housed famed Fred Merriot's garage in Newton, Mass., situated about half-way between Watertown square and Newton Corner. In fact, I had to ask Fred Merriot where the place was at the time, as it was in an onscure location.

The last I heard of Mr. Stevenson, he was operating a motorcycle shop near the old Watertown Arsenal and had given up on the steam project. The engine was intended to replace the transmission and bell housing position in a conventional gasoline car, while the boiler was to replace the car's original engine, under the hood, thus leaving trunk space unobstructed. Many conversion units of that day utilized the car's trunk area to house the boiler while placing the rest of the gear up front. The Alma engine was nicely suited to under-the-floor-boards conversion of most any car, but according to its maker it was never installed in a vehicle before the war. I do not know if any further work was done on the project after the war. I do know that ALMA as an automobile can be scratched from the list for 1938-1945. Only one engine was made to my knowledge.

. . . . .  
From: Mike Worthington-Williams, "Hollybank", 74, Wickham Hill,  
Hurstpierpoint, Sussex, England:

I see (in Issue No.25) that Max Gregory from "down under" is enquiring for details of the export-only INNES car. The only INNES I know is that built in Jacksonville, Florida, 1921-22, and there is a short illustrated article about it in Antique Automobile for Sept./Oct. 1970, p. 20.

Whilst on the subject of odd-ball makes, I am at the moment trying to dig up some information on a light car called WHITE KNIGHT. An example turned up in a shed in July last year and is owned by M.J.Cummins, the Midland Secretary of the ALVIS OWNERS' CLUB. The car is thought to be one of three built ca. 1919 by C. Brinton of Brinton Carpets, Kidderminster, England. Certainly the bodywork seems to date from about that time, although the registration number, if genuine, indicates a much earlier date. The engine is said to be a Knight & Kilburn (sic) with Daimler

transmission and overhead-worm back axle.

The interesting thing is that Knight & Kilbourne were an American firm (Chicago) who marketed a car themselves, 1906-09 called the SILENT KNIGHT which was the first commercial attempt to popularize Chas. Y. Knight's sleeve-valve engine design. It was not successful but as you know, DAIMLER and other European makers (MINERVA et al) did adopt it and it later 'took on' in the States, too.

Could this car be a re-worked SILENT KNIGHT? Who knows! I'll keep you posted on developments . . .

(Ed: The subject of Knight engines reminded me of the following item from New York Times Book Review of Oct. 21, 1973:

"For a biography of Charles Yale Knight (born 1870) inventor of the sleeve-valve engine used in the Fifth Avenue open-air buses and lobbyist against oleomargarine for the dairy industry in Washington in 1900, any information would be appreciated.

G.C.Ramsey, 39 Kenneth St., West Haven, Conn. 06516 " )

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From Nathaniel T. Dawes, 51 Catherine Street, Poughkeepsie, N.Y. 12601:

It was with great interest that I perused Mike Worthington-William's letter as reported in the current Newsletter.

I agree that the name of the Society should be expanded to express the international scope of the Society.

As was also pointed out, the credibility of this Society is our stock in trade and must be zealously guarded lest we become yet another 'social' club. This of course, is the responsibility of individual members. Care must also be taken with regard to the correction of errata in that the documentation of all corrections be compared with the documentation of the original. This will offer a manner of checks and balances to further insure our credibility.

The "Bishop Outline" as noted by President Yost should result in an efficient format for the consolidation of information prior to classification. It will then fall to individual members to volunteer to collate information on their favorite marque as it is submitted to them from other members. This final compilation would then be relayed to a central collection point for classification in the Roster.

By writing this, I make myself available to assist in the realization of the goals of the Society.

(Ed: Dick Brigham has also expressed agreement with the inclusion of the word International in this organization's name. However, by the very lack of a qualifying adjective, the Society of Automotive Historians is not restrictive to any locale any more than the name implies restriction to a particular era.)

From Karl E. Ludvigsen, 1070 Esplanade, Pelham Manor, N.Y. 10803 (to Stan Yost):

I am extremely sorry that circumstances kept me from being present at the recent SAH annual meeting to receive the Cugnot Award for my book  
(cont'd. p. 13)

# Book Reviews

MACK by John B. Montville. Foreword by Don H. Berkebile.

204 pp., 11 $\frac{1}{4}$ " x 8  $\frac{5}{8}$ ", Profusely illustrated.

Haessner Publishing Co., Inc., Newfoundland, N.J. \$14.95

All too seldom does one encounter an accurate and interesting history of commercial vehicles and they are few and far between. In MACK, author Montville has traced the history of the great truck firm from its inception to the present time, carefully avoiding the pedantic quality which doubtless may have been a temptation.

John Montville is a well-known commercial vehicle historian - possibly the most prominent in the land - and is well qualified to tell the story of the firm who made the name 'bulldog' famous.

The format and general layout which is by none other than John Peckham, enhances the worth of the book and two of John's finer watercolors -- one of a 20-24 passenger stage and another of a 1919 Rotary Pumper - are included.

I don't say that this is a must to every automotive enthusiast. Some of you are death on trucks in general. But for those who like the field in toto and especially those of you who really like trucks but deplore the vacuum still more or less existing in available literature, you'd best latch onto this one as it is a fine tribute to an underwritten subject and a complete tale of a highly-regarded commercial make.

Keith Marvin

CARS OF CANADA by Hugh Durnford and Glenn Baechler. 384 pp.,

12  $\frac{3}{4}$ " x 10". Profusely illus. pub. by McLelland & Stewart, Ltd.,

Toronto, 1973. \$25.00 ( A Craven Foundation History)

This volume is, without any reservation whatsoever, one of the outstanding books pertaining to the automobile industry and it will be many years before anything can possibly be written to improve it. This is a 'must' in the automotive field and a milestone in the proper research of automotive history.

The Canadian automobile industry was very much a fact although few, save the true enthusiasts, ever knew very much about it outside Canada. When one thinks of Canadian automobiles these days, he is prone to visualize in his mind's eye cars such as the MONARCH and the METEOR, both Ford products, and the like. Or if he is an enthusiast of a bit more erudition, he might even recall the FRONTENAC, that curio which Durant produced north of the border a year after it failed in the United States - a car utilizing both DE VAUX and CONTINENTAL designs.

But there were cars in Canada, a great many cars, even if most of them died a-borning, and their history has been recorded and beautifully brought to the fore by Messrs. Durnford and Baechler.

Aside from the automobiles manufactured within the Dominion of Canada which were products of U.S. parentage, there were at least sixty others on the scene at one time or another. In some instances, only a prototype or a handful of pilot models were built and sold. In fewer cases, an idea germinated into a reality and the result produced a line of cars which became known, not only locally but throughout the Dominion.

I suppose the most famous of them all from the standpoint of general knowledge, was the MC LAUGHLIN which began production in 1908. And yet there were others. The GRAY-DORT, Canadian version of the U.S. DORT, was highly successful, and the BROOKS, a steam car produced in Stratford, Ont. in the 1920's, produced more cars than any other steam car manufacturer with the exception of STANLEY.

The cars, some the results of barnyard tinkerers - others, solid products designed by competent engineers, and still others, bastardized or slightly redesigned American makes with other names for Canadian sales, rode the roads of Canada when those roads weren't what they are today. Yet, they were with us once and the authors have brought them back in CARS OF CANADA.

In this book, the authors have pursued their story from the beginning to the present time. They discuss the early dreamers and the first manufacturers, and then go on to complete the story with the related fields of the industry and its product -- road construction, registration and everything else pertaining to the subject at hand.

There is every reason why anyone with any interest in automotive history ought to go out of his way and obtain this book. It is complete and it is accurate. It is also beautifully written and its chapters hold the reader's attention. It is the answer to the many questions regarding Canadian cars which arise.

There will be no reason whatsoever for any further history of Canadian cars for a long time to come -- because this is it.

Keith Marvin

(CARS OF CANADA is available from Motorbooks International, 3501 Hennepin Avenue South, Minneapolis, Minnesota 55408.)

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The Library has received copies of two reprints published by a British gentleman. The reprints are of a catalog of steam traction engines built apparently around the beginning of this century by Ruston, Proctor & Co. of Lincoln, England and of greater interest a catalog of the 1923 RUSTON-HORNSBY cars, built by Ruston & Hornsby, Ltd., also of Lincoln. The latter is a sixteen-page booklet quite well reproduced, of the three models offered this, the next to last year of production.

These are available at 50p. each, postpaid, from R.E.Hooley, 16 Alexandre Avenue, North Hykeham, Lincoln, England. Mr. Hooley's letter, in part, explains his motive for this offering: "... I am selling the reprints for the purchase and restoration of a 1913 Ruston-Proctor traction engine for the Museum of Lincolnshire Life. A loan has enabled me to purchase the engine from a farmer in the south of France. I brought it back to Lincoln a few months ago and am now in the process of restoration..." Certainly this is a commendable project.

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BOOKS RECEIVED - To be reviewed in a later issue:

The Ferrari by Gianni Rogliatti

Great Collectors' Cars by Gianni Rogliatti

Peking to Paris by Luigi Barzini

Encyclopedia of Auto Racing Greats by Robert Cutter and Bob Fendell  
675 p., 8 $\frac{1}{2}$ " x 11", \$17.50 Prentice-Hall, Inc., Englewood Cliffs, N.J.

This massive book, started eight years ago according to the preface, contains 550 biographical sketches of the greats and near-greats who are or were connected with motor racing in all forms.

These biographies, in alphabetical order, are in considerable detail. For example, that for Sterling Moss runs to five double-column pages. The writing is in no way stereotyped but is in every case which this reviewer read, done very interestingly. This is a great book for browsing and seems to be quite complete and factual. Not all the persons covered are directly connected with racing. For example, Chris Economaki is here, though quieter than on TV, ironically followed by S.F.Edge. Included are 123 photos of racing cars and events, placed in a group in the center of the book. Most of the biographies include a photograph of the person.

The price of \$17.50 may seem steep, but don't let that stop you if you can avoid it. On the basis of words per dollar, the price must approach that of your local newspaper. This book must be highly recommended, so put it on your birthday list now that Christmas is past.

GMN

The Jaguar Tradition by Michael Frostick

208 p., 7  $\frac{3}{8}$ " x 10", 391 illus. \$15.95

Pub. by Dalton Watson, Ltd.; distributed in USA by Motorbooks International, 3501 Hennepin Ave. South, Minneapolis, Minn. 55408

Here's another of those well-done, one marque books for which the British book market seems to have an endless appetite.

In the beginning there was the Swallow Side Car & Coach Building Co. specializing in motorcycles and later in special bodies for some prosaic British automobiles. The complete line of JAGUARS from the first SS of 1932 down to the current XJ 12 are covered here, mainly by illustrations of generally excellent quality. The writing in this book is sparse and limited mainly to short descriptions of the changes in successive models and to short model specifications. Some of these illustrations show experimental bodies and engines. Among these one-off types is shown the XJ 13, with rear engine - too bad this never got into production.

If ever a post-WW II classic era is ever recognized, certainly the JAGUAR will be considered among the best, aesthetically, and this book has it all down, at least in illustrations.

GMN

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U.S. Companies Manufacturing Passenger Cars in 1907 - Frank T. Snyder, Jr.

The following list of 216 companies were reported as having built passenger automobiles between January and December 1907. While there are some variations in company names and city of manufacture, for the most part the names are readily identifiable. Those preceded by \* have not been identified with a definite make of automobile and references to specifications and length of production have not been found. In some cases, references have been found relating to company incorporation but details are lacking. Additions to this list would be appreciated by the author.

A.B.C. Motor Vehicle Mfg. Co., St. Louis, Mo.  
Abendroth & Root Mfg. Co., Newburgh, N.Y.  
Acme Motor Car Co., Reading, Pa.  
Adams Co., The, Dubuque, Iowa  
\*Advance Motor Vehicle Co., Chicago, Ill.  
Aerocar Motor Co., Detroit, Mich.  
Albany Automobile Co., The, Albany, Ind.  
American Locomotive Automobile Co., The, New York, N.Y.  
\*American Motorcar Co., Indianapolis, Ind.  
\*American Motor Car Co., Mansfield, Ohio  
Anderson Carriage Co. (electric), Detroit, Mich.  
Angus Auto Co., Angus, Neb.  
Apperson Bros. Automobile Co., Kokomo, Ind.  
Atlas Motor Car Co., Springfield, Mass.  
Auburn Automobile Co., Auburn, Ind.  
Aurora Motor Works, Aurora, Ill.  
Austin Automobile Co., Grand Rapids, Mich.  
Auto-Car Equipment Co., Buffalo, N.Y.  
Babcock Electric Carriage Co., Buffalo, N.Y.  
Bailey Automobile Co., Springfield, Mass.  
S.R. Bailey & Co., Amesbury, Mass.  
Baker Motor Vehicle Co. (electric), Cleveland, Ohio  
Bartholomew Co., Peoria, Ill.  
Belden Motor Car Co., Pittsburgh, Pa.  
Bellefontaine Automobile Mfg. Co., Bellefontaine, Ohio  
Bendix Co., Chicago, Ill.  
\*Bethlehem Automobile Co., The, Bethlehem, Pa.  
Black Mfg. Co., Chicago, Ill.  
Blomstrom Mfg. Co., Detroit, Mich.  
Brush Runabout Co., Detroit, Mich.  
Buckeye Mfg. Co., Anderson, Ind.  
Bugmobile Co. of America, Chicago, Ill.  
Buick Motor Co., Flint, Mich.  
Burns Bros., Havre de Grace, Md.  
Byrider Electric Auto Co., Cleveland, Ohio  
Cadillac Motor Car Co., Detroit, Mich.  
Cameron Car Co., The, Brockton, Mass.  
Chadwick Engineering Works, Philadelphia, Pa.  
Chalfant Motor Car Co., Lenover, Pa.  
Chicago Coach & Carriage Co., Chicago, Ill.  
Chief Mfg. Co., Buffalo, N.Y.  
Christopher Bros., Chicago, Ill.  
Cleveland Motor Car Co., New York, N.Y.  
Conover Windshield Co., Paterson, N.J.  
Columbus Buggy Co., The, Columbus, Ohio  
Continental Automobile Mfg. Co., New Haven, Conn.

Continental Auto Co., New Haven, Conn.  
 Continental Motor Car Co., Chicago, Ill.  
 Corbin Motor Vehicle Co., New Britain, Conn.  
 Cornish-Friedberg Motor Car Co., Chicago, Ill.  
 Crawford Automobile Co., Hagerstown, Md.  
 Crescent Motor Car Co., Detroit, Mich.  
 Croesus Motor Car Co., Kansas City, Mo.  
 C.V.I. Motor Car Co., Jackson, Mich.  
 Daimler Mfg. Co., Long Island City, N.Y.  
 Dayton Motor Car Co., Dayton, Ohio  
 DeLuxe Motor Car Co., The, Detroit, Mich.  
 DeSchaum Automobile Co., Buffalo, N.Y.  
 Diamond T Motor Car Co., Chicago, Ill.  
 Dolson Automobile Co., Charlotte, Mich.  
 Dorris Motor Car Co., St. Louis, Mo.  
 Dowagiac Automobile Co., Dowagiac, Mich.  
 Dragon Motor Co., Philadelphia, Pa.  
 Duryea, Charles E., Reading, Pa.  
 Earl Motor Car Co., Kenosha, Wis.  
 Easton Machine Co., South Easton, Mass.  
 Electric Vehicle Co., The, Hartford, Conn.  
 Elmore Mfg. Co., Clyde, Ohio  
 Eureka Buggy Co., St. Louis, Mo.  
 Evansville Automobile Co., Evansville, Ind.  
 Everybody's Motor Car Mfg. Co., St. Louis, Mo.  
 Ford Motor Co., Detroit, Mich.  
 Forest City Motor Car Co., Massillon, Ohio  
 Four Traction Auto Co., The, Mankato, Minn.  
 H.H.Franklin Mfg. Co., Syracuse, N.Y.  
 Oliver Fritchle, Denver, Colo.  
 Gaeth Automobile Co., The, Cleveland, Ohio  
 Garford Motor Car Co., Elyria, Ohio  
 Newton C. Gauntt, N. Yakima, Wash.  
 Gearless Transmission Co., Rochester, N.Y.  
 General Vehicle Co., Long Island City, N.Y.  
 Grout Bros. Automobile Co., Orange, Mass.  
 Harper Buggy Co., The, Columbia City, Ind.  
 Hatfield Motor Vehicle Co., Miamisburg, Ohio  
 Hay-Berg Motor Car Co., Milwaukee, Wis.  
 D.W.Haydock Automobile Mfg. Co., St.Louis, Mo.  
 Haynes Automobile Co., Kokomo, Ind.  
 Hewitt Motor Co., New York, N.Y.  
 Holsman Automobile Co., Chicago, Ill.  
 Hol-Tan Co., New York, N.Y. (actually built by Moon)  
 Hovey Motor Car Co., Kansas City, Mo.  
 Imperial Motor Car Co., Williamsport, Pa.  
 Iroquois Motor Vehicle Co., Seneca Falls, N.Y.  
 Jackson Automobile Co., Jackson, Mich.  
 Thomas B. Jeffery & Co., Kenosha, Wis.  
 Jenkins Motor Car Co., Rochester, N.Y.  
 Jay Webb Motor Co., Chicago, Ill.  
 Johnson Service Co., Milwaukee, Wis.  
 W.H.Kiblinger Co., Auburn, Ind.  
 C.P.Kimball & Co., Chicago, Ill.  
 \*Kirksel Motor Car Co., Aurora, Ill.  
 Kissel Motor Car Co., Hartford, Wis.  
 Klink Motor Car Mfg. Co., Dansville, N.Y.  
 Knight & Kilbourn, Chicago, Ill.  
 Knox Automobile Co., Springfield, Mass.  
 Lane Motor Vehicle Co., Poughkeepsie, N.Y.

Lansden Co., The, Newark, N.J.  
 \*Larsen Ice Machine Co., Chicago, Ill.  
 Lauth-Juergens Motor Car Co., Chicago, Ill.  
 Oscar Lear Automobile Co., Springfield, Ohio  
 T.J.Lindsey, Indianapolis, Ind.  
 Locomobile Co. of America, Bridgeport, Conn.  
 Logan Construction Co., Chillicothe, Ohio  
 Lozier Motor Co., New York, N.Y.  
 Lorraine Automobile Mfg. Co., Chicago, Ill.  
 Luverne Automobile Co., Luverne, Minn.  
 Maplebay Mfg. Co., The, Crookston, Minn.  
 Marion Motor Car Co., Indianapolis, Ind.  
 Mason Motor Car Co., Des Moines, Iowa  
 Matheson Motor Car Co., Wilkes-Barre, Pa.  
 Maxwell-Briscoe Motor Co., Tarrytown, N.Y.  
 Menges Auto Co., Elkhart, Ind.  
 Meteor Automobile Co., Bettendorf, Iowa  
 Mier Carriage & Buggy Co., Ligonier, Ind.  
 Mitchell Motor Car Co., Racine, Wis.  
 Model Automobile Co., Peru, Ind.  
 Modern Tool Co., Erie, Pa.  
 Moline Automobile Co., East Moline, Ill.  
 \*A.T.Mollenhour, Mentone, Ind.  
 Monarch Machine Co., Des Moines, Iowa  
 Monarch Motor Car Co., Chicago Heights, Ill.  
 \* A. Monsen, Chicago, Ill.  
 Moon Motor Car Co., St. Louis, Mo.  
 Mora Motor Car Co., Newark, N.Y.  
 Motorcar Co., Detroit, Mich.  
 National Motor Vehicle Co., Indianapolis, Ind.  
 New York Car & Truck Co., Kingston, N.Y.  
 \*Neilson Motor Car Co., Detroit, Mich.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Northern Motor Car Co., Detroit, Mich.  
 Oakland Motor Car Co., Pontiac, Mich.  
 Okey Motor Car Co., Columbus, Ohio  
 Olds Motor Works, Lansing, Mich.  
 Overland Automobile Co., Indianapolis, Ind.  
 Packard Motor Car Co., Detroit, Mich.  
 Page Gas Engine Co., The, Adrian, Mich.  
 Peerless Motor Car Co., The, Cleveland, Ohio  
 Pennsylvania Auto-Motor Co., Bryn Mawr, Pa.  
 Perfection Auto Works, The, South Bend, Ind.  
 Geo. N. Pierce Co., Buffalo, N.Y.  
 Pierce Engine Co., Racine Junction, Wis.  
 Pontiac Spring & Wagon Works, Pontiac, Mich.  
 Pope Mfg. Co., Hartford, Conn.  
 Pope Motor Car Co., Toledo, Ohio  
 Postal Automobile & Engine Co., Bedford, Ind.  
 Premier Motor Mfg. Co., Indianapolis, Ind.  
 W.C.Price, Chicago, Ill.  
 \*Pullman Motor Car Co., Chicago, Ill.  
 Pullman Motor Vehicle Co., Chicago, Ill.  
 Pungs-Finch Auto & Gas Engine Co., Detroit, Mich.  
 Rainier Motor Car Co., New York, N.Y.

(To be concluded in next issue.)

A Listing of Employment for Nine Companies in Pennsylvania's  
Automobile Industry, 1901-1902

Donald J. Summar

The employment figures for the following companies were taken from the Factory Inspector's Report for the years 1901 and 1902. This report was published annually from 1893 to 1902 by the Commonwealth of Penna. After 1902 the reports contained only statistics, not company employment figures. Apparently only those companies actually inspected were listed for there is no listing for the Autocar Co. of Ardmore, Pa. for either 1901 or 1902. The 1901 report covers the period from Nov. 1, 1900 to Oct. 31, 1901, while the 1902 report covers the period from Nov. 1, 1901 to Oct. 31, 1902. In addition to employment figures, I have attempted to give a little information on each of the companies involved. These nine companies are:

SEARCHMONT MOTOR COMPANY, 1230 North Laurence St., Philadelphia, which had 119 employees on March 20, 1901. The company began the manufacture of a crude motor wagon in late 1900 and added other models, including one with a two-cylinder engine, in 1901. When racing driver Charles Fournier joined the company, it was reorganized as the Fournier-Searchmont Automobile Company and the factory was moved to Trainer, Pa. The FOURNIER-SEARCHMONT AUTOMOBILE COMPANY had 225 employees on Oct. 22, 1902. After Fournier's departure from the organization, the company's name became SEARCHMONT AUTOMOBILE COMPANY and headquarters was moved back to Phila. The company went into receivership in Sept. 1903, the year that the company's slogan was: "All that it's cracked up to be."

The BOSS KNITTING MACHINE COMPANY, Reed and Elm Streets, Reading, had 40 employees on Nov. 27, 1900. By Jan. 8, 1902, employment had increased to 49 persons. Although this company built steam-powered automobiles designed by James Eck as a sideline to the manufacture of knitting machines, the company listed its occupation as "Automobiles, etc." in the 1901 report. A total production of 22 vehicles built between 1898 and 1909 is given in A Century of Vehicle Craftmanship.

The DURYEYEA POWER COMPANY, River Road and Hockley Street, Reading, had a mere six employees on Feb. 14, 1901. Employment had increased to 51 men by April 7, 1902. Such employment figures seem to indicate that auto manufacturing was a fair-weather industry at that time. In 1902, Charles Duryeya claimed that production reached one vehicle per week. According to a history of Berks County published in 1909, total production for the company from 1900 to 1907 was 300 vehicles.

The READING AUTOMOBILE COMPANY, Tenth and Exeter Streets, Reading, had 52 employees on Jan. 23, 1901, when it listed its business as "autos and bicycles". Exactly one year later, the company had 37 employees and listed its business as "automobile gearing". This company, an outgrowth of the Relay Manufacturing Company, built various automobile parts including the construction of chasses for other firms. On Feb. 11, 1903, this company was reorganized as the Relay Motor Car Company which manufactured for a couple of years the RELAY automobile powered by a three-cylinder gasoline engine.

The READING STANDARD MANUFACTURING COMPANY, Water Street, Reading, had just 25 employees at the time of the inspector's visit on Feb. 19, 1902. This firm was down and all but out as a bicycle manufacturer. In 1902, a prototype of the READING STANDARD motorcycle was built and production of the machine was begun in 1903. From near failure in 1902, the company rose to an employment of over 350 hands in 1909. Production in 1908 was claimed to total 6,000 bicycles and 2,700 motorcycles.

The STEAM VEHICLE COMPANY, 753-755 Cherry Street, Reading, had 37 employees on Dec. 11, 1900 and this had increased to 50 by Dec. 18, 1901. The company manufactured the READING STEAMER from 1900 to 1902. It went into receivership in the summer of 1902 and was superseded by the Meteor Engineering Company, organized Aug. 14, 1902. Under the new firm, employment was said to have reached 60 in the shop before the Meteor firm suffered a decline and went into receivership in the fall of 1903.

The SAFETY BUGGY COMPANY of Lancaster had 74 employees on April 2, 1902. This company took up the manufacture of wooden bodies for AUTOCAR in 1901. The company later built some bodies for PEERLESS, PACKARD and IMPERIAL (of Williamsport, Pa.) before liquidating in the fall of 1907. The firm was closed because of a lack of capital to convert to the manufacture of wooden-framed metal bodies.

The TOWANDA MOTOR VEHICLE COMPANY, Plank Road, Towanda, had 20 employees on July 17, 1902. This company was just initiating the manufacture of electric automobiles when the factory inspector made his visit. The company built seven or more electric automobiles before closing down in Nov. 1902. The firm was revived in 1904 as a manufacturer of automobile running gears. Towanda certainly was a poor location for a manufacturer of electrics. A Chamber of Commerce slogan to advertise the town states: "Towanda, In the Heart of the Endless Mountains."

The HOLLEY MOTOR COMPANY, Davis Street, Bradford, had 44 employees on June 28, 1902. An article on this form appeared in Vernelle A. Hatch's Illustrated History of Bradford, McKean County, Pennsylvania published in 1901. This article reads, in part:

"The Holley Motor Cycle . . . is a machine of unique construction, the result of five years of careful study and experiment and the first of the kind for practical everyday use that has been made.

"The Standard model motor of 2 $\frac{1}{4}$  horsepower, will propel the machine at the rate of thirty-five miles per hour over an ordinary country road and will ascend a 20 percent grade without the aid of the pedals. The gasoline tank has a capacity of one gallon which is sufficient to run the motor fifty miles. The frames are either 22- or 24-inch and the wheels 28-inch and all the equipments are made especially for this machine.

"The motor cycle is manufactured in Bradford by the Holley Motor Company which has a factory on Davis Street. The business was started in September 1899 and has now passed the experimental stage. The factory is equipped with the latest machinery and has a capacity of five cycles per day.

"The general manager of the company is George M. Holley. He was born in Port Jervis, N.Y. in 1878, and his life since leaving school has been devoted to work of this character. The present machine which he builds is the result of his research and experiment."

The most interesting photograph with the article is captioned: "George M. Holley on his motor carriage". It shows the inventor as driver of a three-wheeled vehicle of the general type of the early MORGAN. The HOLLEY Motorette, a four-wheeled vehicle powered by a one-cylinder engine, was introduced in January 1903 and in production until late 1904.

These nine companies employed a total of 575 hands for the year covered by the 1902 Report. Such was the nature of the early automobile industry that only one company of the nine, the Reading Standard Mfg. Co., survived past 1909, and five of the companies had gone out of business by the end of 1905. Except for SEARCHMONT, these companies were never more than peripheral entries in the industry, but were very typical of the many early companies which entered upon the production of autos in the first years of the century.

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(Editor's Note: The following was originally published in the Sept. 1945 issue of Journal of the American Rocket Society, but despite its antiquity, the subject is still pertinent to those concerned with autos.)

Motor or Engine? - On the Proper Usage of Terms - G. M. Naul

As language is a flexible tool and its usefulness stems in part from that property, its inexactness is at times a hindrance to the proper expression of certain things: things which naturally fall into more precise categories than the usual definitions attached to them. In such a case, a state of chaos exists until such time as definitions of the exact degree of differentiation commensurate with the prevailing usage of those terms are agreed upon. Such is the present status of the two terms 'motor' and 'engine', particularly in connection with rocketry.

Since rocketry was first seriously studied, these two words have been used interchangeably in referring to the mechanical part of the rocket which does the driving, sometimes called the 'propulsor'. Of these words, 'engine' is the more ancient and until less than a century ago, it was a very general term. As extant examples of its varied uses, we have 'fire-engine', 'dividing-engine' and 'cotton-gin', a corruption of 'cotton-engine'. In the years preceeding 1900, many mechanical contrivances hardly more complex than a buggy were given the elegant term 'engine'. The comparatively modern word 'motor' has been in vogue for the past century but has also fallen into general misuse.

The terms 'engine' and 'motor' cover a definite sector in the field of machines and the prevailing method for specifying the type of engine or motor is to prefix the word most descriptive of the type. Thus we are able to recognize the essential difference between an 'electric motor' and a 'tidal motor' and between a 'diesel engine' and a 'gasoline engine'.

The generic term for 'motor' and 'engine' is 'prime-mover'. Now we come to the somewhat neglected question: when is a 'prime-mover' a 'motor' and when is it an 'engine'? A purist might consult the New English Dictionary with these results:

Engine: "Modern usage has limited the word to the steam-engine and to some analogous machines . . ."

Motor: "A prime-mover, as a steam-engine. . ."

Despite the lexicographers' confusion, modern engineering usage has clearly separated the two.

The function of both 'engines' and 'motors' is to effect a conversion of energy from one form to another, from potential to kinetic energy. The main point of difference is that an 'engine' is an energy transformer, complete in itself and requiring no independent source of potential energy to function, aside from a fuel reservoir. An engine effects, in one unit, the combined function of a generator and a converter.

Distinctly different from this is the 'motor' which is dependent upon an outside source of energy and is in the role of being complementary to, and dependent upon some sort of energy generator. Thus, in the case of an 'electric motor', the outside source of potential energy is a generator in the form of a dynamo or a storage battery. In the category of motors so defined are 'tidal motors', 'compressed-air motors' and so-called 'solar engines'

This would limit the term 'engine' to prime-movers of the internal-combustion type, until such time as an atomic-engine is developed. In this connection it may be mentioned that the 'steam engine' is a misnomer and this prime mover is in reality a 'steam motor', as it must be supplied with steam from a boiler in order to operate. As shown before, the meaning of the word 'engine' has changed since the invention by Watts of this prime mover.

In the field of rocket science which is really, as yet, in an embryonic state, a certain amount of disagreement is to be expected in the nomenclature, but it would be in the interest of coherency in this field to standardize on the terminology of the rocket in a logical manner and in agreement with the terms common to other sciences. It is the purpose of the foregoing to show that the generally-used term 'rocket motor' is incorrect; rather, as it falls into the category of the internal combustion engine as an independent energy transformer, it should be 'rocket engine'. This is not merely a matter of being precise, but rather one of correct usage. It (the rocket engine) is not, like a 'motor', an accessory to a prime generator, but is in itself a complete power unit.

Some disagreement is also evident in referring to the prime mover for jet-propelled machines. The prime mover is also in this case an engine, a 'jet engine'.

It is of interest to note that the rocket engine shares with the atrodyd the unique position of being the only prime movers with no moving parts.

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LETTERS (continued from p.3 )

on MERCEDES-BENZ Racing Cars. I was tremendously surprised and pleased by the decision of the SAH committee to recognize my work with this award. The existence of the Cugnot Award is vital to the encouragement of serious research and writing in the field of automotive history -- a realm in which the good work that has been done has, in the past, received little recognition. I'm sure the Cugnot Award will encourage more writers to give more serious attention to this activity. It certainly has in my case!

Please accept, on behalf of the SAH, my sincere gratitude for this award. Please also let me know if I can be of any help to the Society in the year ahead.

WANT ADS:

**WANTED:** Information on the life, career and work of designer J. Frank DeCausse; also want New York Salon catalogs of all years, especially 1930, and any information or photos of the exhibits at the 1930 New York Show, especially of the Derham exhibit.

Walter E. Gosden, 197 Mayfair Ave., Floral Park, N.Y.  
11001

**WANTED:** Any verified information whatsoever on a WHIPPET automobile supposedly built in Trenton, N.J. ca. 1912

Charlie Weaver, 2754 Lullington Drive, Winston-Salem, NC 27103

**SELL OR TRADE:** "Some years ago I bought a bound book of photostats of articles reproduced from Automotive Industries. There are 48 pages of the most comprehensive and complete specifications of European cars and trucks for 1928 through 1935; a 20-page article in two parts on "The Automobile Industry That's Behind the Iron Curtain" from Feb., Apr. 1948 and a short article on the history of OLDSMOBILE (1948). For example, the 1928 list has specifications on 160 makes and models of French cars alone. Is anyone interested in this book? Would sell but prefer to trade for any materials on BUGATTI or AMILGAR that I don't have."

Irv. Silverman, 105 W. Adams, Chicago, Ill. 60603

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NEW MEMBERS AND THEIR INTERESTS:

R.C.Lenz, 12860 La Cadena Drive, Colton, Cal. 92324

(U.S. passenger cars, production prototypes and would-be models, 1929 to date. Japanese cars, all ages and styling of all previous cars and foreign makes.)

Jim Benjaminson, 203 Main Street, East, Cavalier, N.D. 58220

(Autos manufactured in N.D. and surrounding areas of Minnesota and Manitoba. Also MARR auto built in Elgin, Ill.)

Kenneth M. McMaken, 1201 Park Ave., Piqua, Ohio 45356

(American auto racing - championship, dirt track, sprint, midget, 1895 to date. Also race results, racing car drivers and other participants.)

Bradley Sears, 27 Holmfield Ave., Mattapan, Mass. 02126

(Automotive technology of all years.)

Randy Allen Ledermann, 1043 F Street, Salida, Cal. 81201

("Historian of heavy-duty trucks, particularly FWD, OSHKOSH, WALTER and STERLING from 1900's to 1973.")

Mrs. Angela Cherrett, The Old Forge, Quarr, Gillingham, Dorset SP8 5PA, England

(ALFA ROMEO, pre-1940. Vintage sports cars and competition, pre-1940. Italian road races, particularly 1000 Miglia. Also British coach builders.)

David C. Cross, 5220 Chasewood Place, Louisville, Ky. 40229

(Harry A. Miller's works; Duesenberg's engines; Frontenac engines; Technical works; Early patented engine designs; Early American racing cars.)