

### **Editor's Column**

I am done with winter. I need some road time behind the wheel of the Model T more than I can describe.

I had some problems with the last issue getting mangled in some post office machinery along the way, which caused more than the usual amount to get returned to me. I am going to try something different for this issue which will hopefully alleviate some of this problem.

If you receive *The Hyphens* in paper form through the US Mail, and you have an email address, you can help out by sending me your email address so I can send you *The Hyphens* electronically. You can print them out yourself if you want.

If you are interested in helping out with the costs for the publication of *The Hyphens*, I would accept donations. Everything donated goes to support the publication of this newsletter and the cost to support the website. Thanks to donations received at Hershey, I have enough funds to do 4 more issues after this one, unless US postage rates go up again, then we will see.

If you enjoy getting *The Hyphens*, would you consider writing an article for an issue? I have exhausted my list of ideas for articles. So I need either articles to print, or ideas which I can pursue for articles. Thanks to Tom Ruggles for writing the article for this issue!

Do not forget the *E-M-F Company Outing tour* this summer organized by **Frank Iaccino**. See the section in the **Upcoming E-M-F 30 Events** section on the last page for more information. Thanks to Frank for organizing this tour.

Happy Motoring! John M. Daly

# **Don't Forget** E-M-F Registry Meeting @ Chickasha Swap Meet - Thurs 3/20 @1:30 PM – Look for signs at show!



Photo #1 (Left) showing early carburetor and Photo #2 (Right) showing late carburetor.

# **E-M-F CARBURETORS – PART 1:** IDENTIFICATION AND CHANGES

By Tom Ruggles

To begin with, I am not a carburetor expert, but I have rebuilt dozens of early carburetors, including several for EMF. In my 22 years of EMF ownership I have found surprisingly little information about the carburetors used on the EMF Thirty. Even though the EMF carburetor is easily recognizable and distinguishable from other brass carburetors, none of the owners I have asked could even name the manufacturer. This has created enough curiosity to induce me to compose this article. I have attempted in Part 1 to provide some helpful information for other owners. It is my hope that this may stimulate some feedback, and that other owners will supplement or correct as necessary what I have presented here.

Although I have not seen any manufacturer identification on any EMF carburetor, I am convinced that it is a Schebler design. A comparison with a somewhat smaller carburetor from a 1911 Sears car, which is clearly marked with the Schebler name, shows that it has an identical float valve chamber, cover, valve, needle and lever, and the same design float, venturi and jet, although these last three parts are somewhat larger on the EMF. It has always been common for auto manufacturers to purchase rather than build components such as lamps, ignition and other systems, so the carburetors were most likely made by Schebler.

Relying on several editions of original illustrated parts books issued by the EMF/Studebaker Companies, as well as the features of original carburetors acquired over the years, the carburetors can be generally separated into two styles, which we can call "early" (photo #1) and "1912" (photo #2). These share the same upper body and bowl with minor internal changes, the main difference being the addition and function of external attachments. All carburetors used a single jet for supplying fuel, so we can infer from the nature of the modifications on the 1912 carburetor that they were made to allow for more adjustments in fuel mixture over a range of engine temperature, speed and load conditions.

#### EARLY CARBURETORS

The early models of the EMF Thirty lacked a choke for cold-starting, obviously relying on the carburetor primer or "tickler" to open the float valve and flood the carburetor throat with fuel, supplying a rich mixture to the engine. This style used the A181 hot air tube, which had no choke butterfly (photo #3). This setup fed warm air to the carburetor only after the engine warmed up, so was not an aid in cold weather starting. Use of the primer cups on the engine would have been a must in cold temperatures.

There were several minor changes during the evolution of the "early" style carburetor:

1. The earliest 1908 (1909?) model used a cast brass throttle butterfly with a single set screw for attaching to the throttle shaft, which is 3/16° diameter. At some

*E-M-F Carburetors Continued on page 2* 



Photo # 3 showing the early (Left) and late (right) choke assembly.

#### E-M-F Carburetors

Continued from page 1

unknown time during production, the throttle shaft diameter was increased to 1/4" and machined with a narrow slot to hold a 0.030" thick brass throttle plate, attached with a screw threaded into the choke shaft. This design remained for the duration of production.

2. On the earliest models the "tickler" bracket was cast brass, changing to stamped brass later on.

3. The dimension between the machined surfaces of the upper body and bowl was changed, which affected the thickness of the annular gasket at the venturi. On the earliest model the gasket seat in the upper casting was machined 0.042" above the outer machined surface where the bowl mates to the upper body. The bowl casting was machined with the venture gasket surface 0.030" above the mating surface of the bowl. The later design had the upper gasket surface 0.125" above the outer surface lower gasket surface machined flush with the top of the bowl. The later design requires a thicker gasket.

#### **1912 CARBURETORS**

While I have not found documentation of the date of introduction of this style carburetor, it is generally considered to be the 1912 model year, or possibly the late 1911 cars which were built in the style of 1912. This carburetor used an improved hot air tube containing a choke assembly (photo #3) as well as a lever control assembly for the auxiliary air valve (photo #4).

The choke assembly improved coldstarting, and is operated by a wire run through the radiator. But even with the choke, use of the primer cups on the engine is often still required in cold weather or when the engine has not run for several weeks. The lever operator on the auxiliary air valve allows the driver to override the spring/vacuum-controlled valve opening by setting a dash control for a richer fuel-air mixture during warm-up.

It is assumed that both of these

Photo # 4 showing the auxiliary air valve used on the later carburetors.

features were introduced at the same time, although I have seen earlier cars with the choke only. Since they are interchangeable with the earlier design parts, owners may have added the later parts to an early carburetor to improve cold-weather starting.

Several of my examples of the 1912 carburetor have a 5-digit number stamped on the top surface of the upper casting above the fuel bowl. None of the early style castings I have seen have this number. It may have been a manufacturer serial number. One of the 1912 carburetors I have has "E.M.F." stamped vertically on the side of the float valve area of the bowl casting. This is the only identification I have seen on any EMF carburetor.

PART 2 of this article will appear in a future issue. It will include discussion of operation, service and repair of the EMF carburetor, as well as any corrections of Part 1 or additional information readers may provide. You may contact me at *CONTACT INFO BLOCKED* 



### A Thought to Ponder

If work is so terrific, why do they have to pay you to do it?

**President's Message** By Daryl Kemerer,

E-M-F Registry President

### "One Foot in the Past"

Brrrr! It's such a cold day in western PA that the icicles on the tree limbs are shivering. I could go warm up the back garage and work on the E-M-F roadster, <u>or</u> sit at the kitchen table with a hot cup of coffee and read a magazine...whoops! I spilled some coffee.

I sat down with a fresh cup of coffee and a magazine. It has photos of four very attractive girls on the first four pages inside the front cover (The Diver, Daydreams, Melody, and Purity). The photographs are quite risqué considering the magazine is the Metropolitan Magazine from June of 1897. Next in the magazine were a few more photos of debutants and actresses of the day, including Lillian The first article "The Horseless Russell. Carriage in New York" also caught my eye. Another article "Beautiful New Yorkers" extolled the beauty of the fair aristocratic women with flattering text and photos. Beautiful women and actresses who would now be 125 to 150 years old don't excite me. The horseless carriage article with 14 photos won mv attention.

The article recalls the 18th century attempts to use steam to propel vehicles, followed by the invention of the 'safety' bicycle; and the horseless carriages appearing in 1889 propelled by steam, vapor (gasoline), and electricity.

The objections to the gasoline vehicles forwarded in the article included noise, vibration, and danger of explosions! The vibrations caused discomfort and the noise frightened horses. The article concluded that gas motor propulsion would be dropped in favor of electric vehicles.

E. W. Sargent, author of the article, acknowledged two drawbacks of electric vehicles. These were the electric battery with its heavy leaden plates, and the short distance in a charge. The author suggested that convenient "charging stations will be established," and the "rapid rate of advancement...of the application of electricity as a motive power" will resolve the disadvantages of electric powered vehicles. Well, knock me over with a feather!!! Where have I heard this before?

Mr. Sargent also asserted that, like the failure of the 'safety' bicycle and the trolley to replace the horse, the horse would not be entirely supplanted by the automobile. He predicted that the electric automobile would be useful in cities but not without an effort to keep automobiles out of the parks to reduce horse runaways.

The text as well as photographs depicted the New York City scene as one of

#### **Presidents Column** Continued from page 2

mothers with children, businessmen, and sightseers alike renting and using electric vehicles to get about the city. These motorcars were of the hansom cab type with the passengers out front and the driver behind and above. These seemed to have been popular because there was nothing out front to obstruct the view (horse's derriere)!

Wow! How far we have come in the past century plus. Sargent was almost totally wrong; for the shaking, noisy gas vapor machine has for the most part supplanted the horse, save for the Amish clinging to the past with their religious convictions and horse drawn vehicles. Yet still today politicians and daydreamers contrive to make electric vehicles viable. At the Hershey Swap Meet last fall I was quite amused to see the "charging stations" in the Chocolate World parking lot with only one vehicle getting charged. Furthermore, electric vehicles are so quiet that politicians want them to make more noise so that pedestrians will hear them coming.

Today most of us ride around in vehicles that are considerably less noisy, less vibrating, and with explosions contained in combustion chambers at speeds beyond Sargent's wildest dreams. The gas mobile has come a long way baby! Electric vehicles still have some of the same drawbacks now as in 1897.

I will always have only one foot in the present. My other foot will be in the past, vicariously living a century ago, by pressing the acceleration pedal to the floorboard in my antique automobile. Books and movies can take others to the past, but our antique automobiles let us experience the past with every turn of the crank!

On further reflection, those old broads in the <u>Metropolitan Magazine</u> didn't look too bad 100+ years ago.

Check out the award-winning E-M-F Homepage often for information, photographs, and updates on events as well as John Daly's saga of his E-M-F restoration. John is the most important asset to our Registry, providing a clearing house for historical and technical information. His tireless effort is appreciated by all.

Hope to see you at the 2014 E-M-F Outing in the Hudson Valley of NY July 13 through 18. Mary Ann and Frank Iaccino have planned an exciting week of touring. Come along and vicariously live in the past as we press the accelerator pedal to the floorboard. NOTE: See information in the Upcoming E-M-F "30" Events on the last page of this issue for more information.

Daryl Kemerer

### **Possible Part Runs**

Several people are either planning or looking into having some parts reproduced. Please contact these people if you are in need of these parts and are interested in more information or to be included:

**EMF** Transaxle Cast Aluminum Transmission Case (center section). I've seen 2 of them blown up, and one with many cracks in the last year, so believe there is a need, just need to know how much interest so I can get some cost together. Clay Green CONTACT INFO BLOCKED

**EMF ring and pinion** and **Spider Gear** machining run. I am having a run of new EMF ring and pinion sets machined, as well as new spider gears, in the near future. If you would be interested in obtaining a set of EMF ring and pinion gears and/or spider gears as part of this run please contact me to discuss the cost and timing. **Bob Lipnichan** *CONTACT INFO BLOCKED* 

**E&J 577 Headlamp rims**. These are the type of lamp found on the 1912 E-M-Fs. **Joe Swann** - *CONTACT INFO BLOCKED* 

### **E-M-F** Cars For Sale

2 E-M-F Parts cars for sale. The one looks like a 1909 or 1910, and the other looks like a 1911. What we have were assembled from a pile of parts received. There are many more parts included as well. Pictures available. Just contact me. \$7500 for everything. Pat Craig *CONTACT INFO BLOCKED* 

**1912 Studebaker- Flanders 20 roadster**, 4 cyl, 20hp, 3speed trans, new side curtains & top. Attended several EMF Gatherings and AACA/HCCA reliability tours.\$28000. Email for more pictures. **R. Stephens** *CONTACT INFO BLOCKED* 

### **E-M-F Services**

**Restoration:** Presently repairing and doing complete restorations on the Splitdorf Model D Magnetos and Coil boxes used on E-M-F automobiles. I also have a small number of excellent **NEW E-M-F Magneto Caps**. For price, please inquire to **The Brass Magneto** *CONTACT INFO BLOCKED Registry Member Gordon Matson* 

### **E-M-F Parts Wanted**

Information, Postcards, Trophies, etc. on E-M-F Racing. Gordon Matson CONTACT INFO BLOCKED

Second gear for 1912 EMF -- the gear that goes on the countershaft, not the sliding gear. **Part no A-480**. This must be an original style 14.5 degree pressure angle gear - not a reproduction gear with 20 degree pressure angle. 4.0 inch pitch diameter, 24 teeth, 4.25 inch outer diameter over teeth. Larry Hoagland – CONTACT INFO BLOCKED

E-M-F #A 2044 gas tank outlet trap (filter), two #A 372-01 rear spring clips, and a left triple tier E&J sidelight with flare front (show quality). Daryl Kemerer CONTACT INFO BLOCKED

Need **stub axles** for my Flanders 20 (1911). **Peter Handley** *CONTACT INFO BLOCKED* 

### **E-M-F Parts For Sale**

I now have E.M.F. timing gear sets available at \$750.00 a set plus \$25.00 shipping. This is a onetime small run of gear sets. I will need to know which type of timing gear is required. There are 2 different types, one with 2 dowel pins to time it to the cam shaft and another that is timed with a woodruff key. I could deliver these to Hershey and save shipping charges. I also have a list of E.M.F. parts too numerous to include. Write or e-mail for list. New Manufacture: Part number A-180. Water outlet pipe. Limited run of fully machined aluminum water pipes. \$ 260.00 postpaid. Jaehnert CONTACT INFO Flovd BLOCKED

**E-M-F Carburetor** for a pre-1912 E-M-F for Sale - \$400 - **John Haynes** *CONTACT INFO BLOCKED* 

Flanders reproduction **cast solid aluminum hood former** (unpolished) \$330.00, and reproduction **rubber bumpers for rear axle** (pair) \$40.00. **Daryl Kemerer** *CONTACT INFO BLOCKED* 

"The Hyphens" is the official publication of the "E-M-F Registry" – an affiliated registry of the Horseless Carriage Club of America. There are no Membership dues at this time. Donations are accepted to help with the cost of the newsletter and Website. President: Daryl Kemerer - CONTACT INFO BLOCKED Vice President: Floyd Jaehnert - CONTACT INFO BLOCKED Main Contact/Newsletter Editor/Webmaster/Secretary/Treasurer: John M. Daly - CONTACT INFO BLOCKED - Visit us online at http://emfauto.org

## Upcoming E-M-F "30" Events

March 20<sup>th</sup>, 2014 @ 1:30 PM - E-M-F "30" Owners Meeting at Chickasha Pre-WWII Meet on the Thursday of the show. It will likely be in a meeting room in one of the buildings. This will basically be a time to meet up with other owners, register your E-M-F with the E-M-F Registry, check/update your E-M-F Registry information and discuss the future of the E-M-F Registry. If you are going to Chickasha, please plan on attending. For more information contact: Tom Ruggles CONTACT INFO BLOCKED

July 13<sup>th</sup> – July 18<sup>th</sup>, 2014 – E-M-F Registry Tour - We invite you to join us for the sixth biennial revival of the E-M-F Company Outing. This is a five day pre-1916 hub tour for E-M-F and related marques. For 2014 we will be headquartered in Kinderhook, NY. This is a beautiful area in the Hudson Valley for a tour with old cars. There is much to see and do so please consider joining us even if you cannot bring a car. This is a friendly group and rides are available. This is a very rural area mid-way between Albany and Poughkeepsie, New York in the heart of the Hudson Valley. There will be plenty of secondary roads to use on the tour without the need to travel on major highways. We also will not be using the gravel roads that have become famous on the tours of New England, so you can relax. Tour Registration deadline is May 1<sup>st</sup>, 2014 and hotel room rate may not be available after the June 01, 2014 hotel cut-off date. For more information contact: Frank Iaccino - CONTACT INFO BLOCKED Note: Registration packet included with Email Distributions. US Mail – Contact Frank Directly if interested.

**October 10<sup>th</sup>, 2014 - E-M-F/Flanders/Everitt Owners Meeting at 2013 Hershey AACA Fall Meet- Friday October 10<sup>th</sup>, 1:30PM Hershey Time** – The meeting will happen in Jim Gorel's spaces CI 73-75 on the Chocolate field. This will basically be a time to meet up with other owners, register your E-M-F with the E-M-F Registry, check/update your E-M-F Registry information and discuss the future of the E-M-F Registry. If you are going to Hershey, please plan on attending. For more information contact: Daryl Kemerer *CONTACT INFO BLOCKED* 

**NOTE:** If you have received this issue via US mail, and have an email address, can you please send me an email at *contact info blocked* (*contact info blocked*) so I can save some money and start delivering *The Hyphens* by email? Thanks!

John M. Daly CONTACT INFO BLOCKED



