AUTOMOBILE SECTION

SUNDAY CAPITAL NEWS

FOR AUTO OWNERS — BOISE, IDAHO, SUNDAY MORNING, APRIL 29, 1917. — FOR PROSPECTIVE BUYERS

POINTS OUT THE ADVANTAGES OF ENTRY SYSTEM

Electrical Engineer Reads Interesting Paper on Features of the Transmission Used in the Owen-Magneto Cars.

APPLIED TO VARIOUS TYPES OF VEHICLES

Owners Speak With Enthusiasm of the Big Tire Mileage Obtained—Problem Which Has Bothered Makers for Years Solved.

Walter S. Goll, an electric engineer of the Fort Wayne plant of the General Electric company, in charge of the manufacture of the Entz transmission used in Owen-Magneto cars, read an interesting paper before the members of the Society of Automobile Engineers, at the Automobile Club of America in New York on "The Advantages of the Use of the Entz Transmission in Automobiles."

Mr. Goll, in a general way, discussed the functions, advantages and limitations of the steam and gasoline motors and explained the many advantages possessed by Owen-Magneto cars through the use of the Entz transmission over cars using steam or the ordinary type of gasoline motors.

"Unlike the steam engine," said Mr. Goll, "the torque of a gasoline engine can be varied widely only by throttle control, and it has no overload capacity. It may be considered as having only an instantaneous cut-off, since the maximum pressure following ignition is practically instantaneous, after which the pressure on the piston for the balance of its stroke is a rapidly decreasing one, resulting only from the expanding gases filling an increasing volume developed by the movement of the piston.

BELOW INITIAL PRESSURE.

"The mean effective pressure is, therefore, considerably below the initial pressure and there is no known way to bring the mean effective up to or near the initial pressure. Contrast this with the steam engine operating at three-quarter or seven-eighth cut-off in which the mean effective pressure is very nearly to the initial of boiler pressure. Furthermore, the torque of the gasoline engine frequently falls off materially at low speeds and it is necessary therefore in order to meet the widely varying demand of traction work to provide some means of delivery to the road wheel a torque several times that developed by the engine and of varying this torque ratio.

"In addition, since the gasoline engine will not start itself, and therefore must be allowed to stand idle when the car is stopped momentarily in traffic, means must be provided for disconnecting the engine from the driving mechanism of the car.

AN OLD PROBLEM.

"From the day the first gasoline propelled vehicle was built engineers have expended a great deal of time and thought in an effort to solve this problem, as the countless patents on record in Washington attest, and all sorts of cone, disk, and band clutches, planetary and sliding gears, not to mention friction and hydraulic transmissions, as well as pneumatic and electric gear shifts, have been devised, none of which, however, seems to have fully met the ideal.

"Some years ago J. B. Entz, an electrical engineer and inventor of wide experience, conceived the idea of magnetic transmission for automobiles, realizing as he did the great power and at the same time the ease of control and flexibility of the attractive force set up between two magnets.

"In fundamental principle the original design was essentially the same as the present one, and it was successfully applied at that time to various types of vehicles, including pleasure cars and trucks, some of which are operating today after 170,000 or 180,000 miles of service."

Mr. Goll in discussing the many advantages and economies of a car equipped with the Entz transmission, called attention to the fact that inasmuch as none of the power impulses of the engine were transmitted to the rear wheels, a great saving was effected on the tires, and many of the owners of the Owen-Magneto cars spoke with enthusiasm of the great tire mileage they obtained.

MAXWELL TOUR OF 10,000 MILES AT A TOTAL COST OF $147

Seeley Table of Costs Reveals It Is Cheaper to Travel by Auto Than to Stay at Home.

Ten thousand miles of Maxwell motoring for $147!

With this record for achievement to her credit, a woman has now established for the first time in the history of the automobile industry that the greatest of vacations, the motor car tour, is possible for the Maxwell owner for less money than it costs to stay at home.

She is Mrs. Miriam Thayer Seeley, professor in the department of physical education for women, Oregon agricultural college, Corvallis. Mrs. Seeley, who toured from Oregon to Boston and return, covering 9700 miles in all, to aid motorists to an understanding of the economies of the light and economical automobile, has just made public a complete table of expenses for the drive. Helpful facts for intending automobile buyers are contained in this table, given below, which in analysis reveals that she accomplished the equal of a season and a half of automobiling for a cost that figures out to about $8 a month.

DETAILED TABLE.

Nothing like this table has ever before been forthcoming from touring experience. In complete detail and as signed by Professor Seeley, it shows:

Complete operating expense, automobile trip—Maxwell touring car—from Corvallis, Ore., to Boston, Mass., and return—9700 miles:

Total number of miles traveled, east, 4500.

Total number of miles traveled, west, 5200.

Daily average in miles covered—Plains, 175; mountains, 150.

Average number of miles per gallon of gasoline (trancontinental east), 22.4.

Average number of miles per gallon of gasoline (west from Chicago) with loaded trailer, 17.2.

Cost of gasoline going east	$50.11
Cost of gasoline going west (with loaded trailer)	67.69
Cost of oil and grease going east	6.90
Cost of oil and grease going west (with trailer)	8.66
Cost of food going east (2 persons)	19.58
Cost of food going west—	
Boston — Chicago (2 persons)	$ 4.16
Chicago—Spokane (4 persons)	33.11
Spokane—Portland (2 persons	3.87
	$41.14
Repairs going east (including service)	3.50
Repairs going west (including service)	10.50
Tolls going east (bridge and ferry)	4.40
Tolls going west (includes admission to Yellowstone Park $7.50)	9.00
Cost of tires	

.....Rather difficult to estimate I used oversize tires of the same make as the Maxwell car is equipped, which gave more than 9000 miles.

MIRIAM THAYER SEELEY,

March 31, 1917. Corvallis, Oregon.

Professor Seeley and her husband put their car through every description of road that America has to offer, and in twice crossing the continent they established the deductions that Maxwell motoring not only costs much less than traveling by rail, but that the costs for such minor repairs as were necessary amounted to only $14. This indicates that the car in service will work with less than 50 cents a month for repair upkeep.

The tire equipment that comes with the Maxwell gave the Seeleys upward of 9000 miles. This tire service reveals that correct and scientific weight distribution as a Maxwell engineering feature has been accomplished.

LOZIER TO REORGANIZE.

There is to be a complete reorganization of the Lozier Motor company under Michigan laws. The plans are under way to establish dealers throughout the country, a change from the present factory branch arrangement. Several material changes in the car are contemplated, and the company will enter the custom body field with several styles of bodies on one chassis. The purchase of the company by Theodore Friedeberg and Maurice Rothschild is the forerunner of important announcements of the entry of much new blood into the organization.

Studebaker Distributor the First Driver Into the Yosemite Valley

After weeks of hardships and perseverance, a Studebaker crew has reached the floor of the Yosemite valley, and the Chester N. Weaver company, San Francisco distributors of Studebaker cars, is entitled to the Desmond silver trophy offered as the prize for the first car to get into the Yosemite.

The following dispatch has been received at the offices of the Studebaker Corporation, South Bend, Ind., from W. B. Lewis, supervisor of the Yosemite national park:

FIRST CAR TO ARRIVE.

"The Studebaker boys, driving a six-cylinder seven-passenger 18 series model Studebaker, have arrived at the Sentinel hotel, Yosemite valley, the first car to arrive in the valley this year. Car made the trip from San Francisco via the Coulterville road, carrying 'A-1' license plate."

During a recent heavy snowstorm in the mountains, Weaver thought that the boys who were driving the car were either lost or had suffered serious injury. For many days no word had been received from them, and until a lion hunter employed by the United States government to shoot wild animals on the Yosemite reservation, brought the news that he had encountered them at the Merced grove of Big Trees checking station, Weaver had no idea of their location.

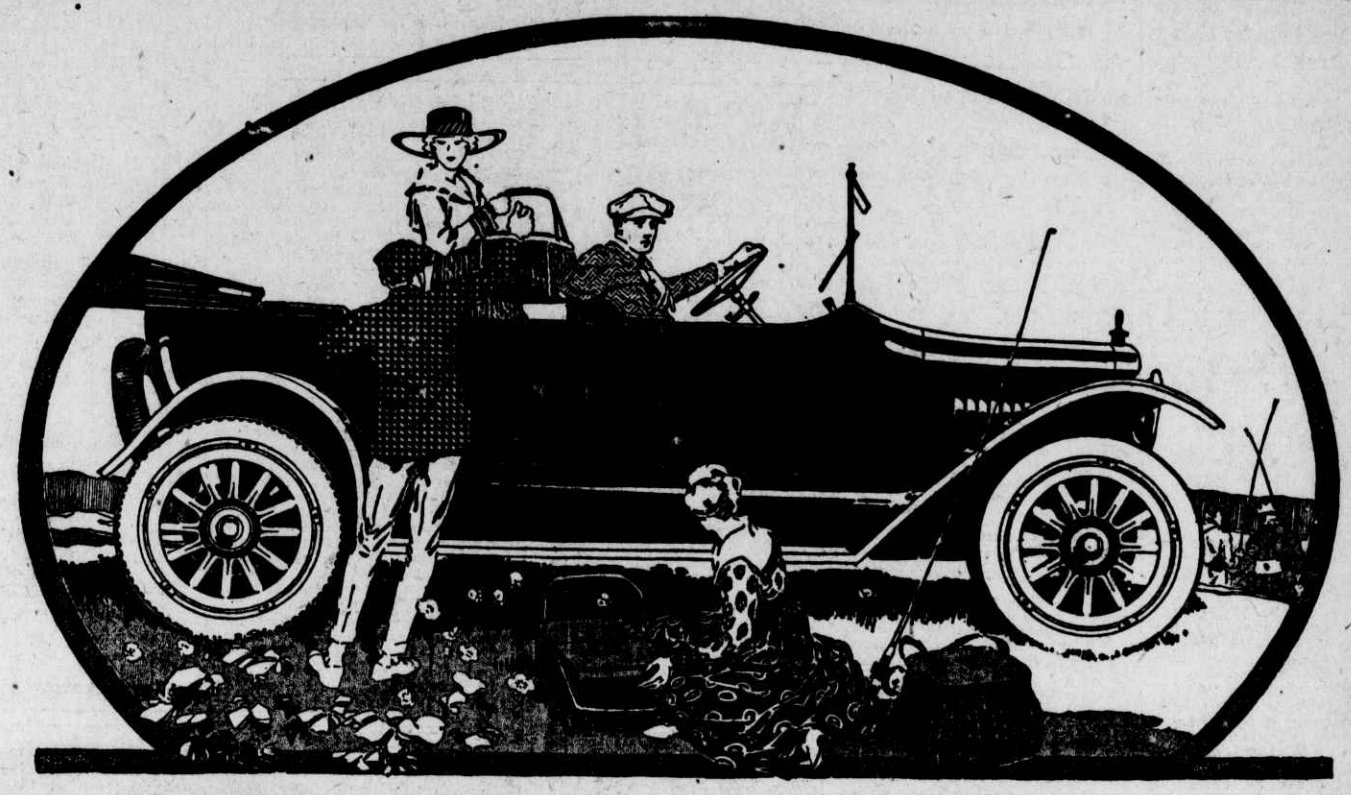
According to the report received by telephone from the crew, the battle with the muddy roads and deep snow was a severe test for the sturdy little car and the men who were piloting it.

THOROUGH TEST OF POWER.

Weaver sent out the car in order to thoroughly test the power and strength of the motor and the machine itself. He is well satisfied now that the new Series 18 Studebaker is able to withstand any sort of hard driving to which it may be subjected.

Fighting its way through soft snow and over roads which were practically washed away, the Studebaker behaved beautifully, according to the statement of the boys in charge of the trip. Any one who is accustomed to mountain driving can well appreciate what the crew and the car had to go through. Under ordinary conditions when the roads are in fine shape and the weather is perfect, the trip into the Yosemite valley via the Coulterville road is one which requires careful driving. When this narrow mountain road is banked with snow and in spots has no bottom, owing to the soft mud, it takes a staunch car and a nervy crew to reach the valley.

It has been a great fight each year to see who could master the huge snow drifts first and the honor has fallen on Studebaker for the fourth consecutive year. The trip this year was made more difficult due to the extremely heavy fall of snow, which is the heaviest on record in the Yosemite region.



April Allotment at Old Price
After May 1st, All Cars New Price

Last Chance for You to Own a "World's Non-Stop Record Champion Car" at the Old Price

Constant rise in cost of steel and other raw materials is forcing up the price of the Maxwell Car, because the Maxwell Company has refused to cheapen by a single penny anything that goes into the making of the "world's non-stop record champion car."

The factory has agreed to let us have our April allotment cars (ordered in March) at the old price; that is why we can give you for a few days more the biggest bargain in a real automobile ever offered in the history of the automobile industry.

We can give YOU from now until May 1st to own this world's champion car at the old price.

After May 1st Identically the Same Car—But at the New Advanced Price

Not a particle of difference in the car itself,

—the same model and design in every detail,

—the same super-product of the best automobile experience, the finest engineering skill and craftsmanship, backed by one of the largest factories in the world,

—the same speedy five-passenger, roomy, comfortable, easy-riding, beautiful automobile,

—the same famous record-making Maxwell motor,

—the same powerful motor that "laughs at hills,"

—the same Maxwell car that by its many records of 150,000 miles actual running (which equals 20 years' regular service) has earned for itself everywhere the proud title, "The World's Greatest Motor Car Value."

A Car of Endurance, Economy and Amazing Mileage Per Gallon of Gas

For 22,022 miles—for 44 days and nights—a Maxwell car ran without once stopping the motor.

There is the world's non-stop record for endurance, as testified to by the American Automobile Association.

Monthly Expenses $8.19

For 9,700 miles Mrs. Miriam Seeley, Professor at the Oregon Agricultural College, drove her Maxwell on a *total* expense account, including gas, oil and repairs, of 1½ cents per mile, *making an average monthly running expense of $8.19.*

There's a record expense performance—often lowered by hundreds of Maxwell owners every month.

When You Buy a Maxwell You Buy a Real Car

You don't have to figure up another two or three hundred dollars on "extras" when you buy a Maxwell car.

You get what you pay for and what you are entitled to—a thoroughly up-to-date automobile, complete in every respect.

You know the whole story now—the story of the increased price next month *and the story of your last chance to buy at $635.*

If you buy in May you'll get the same car exactly. BUT the price will be $665.

TODAY the Maxwell is $635.

The difference is the premium for your prompt action.

Bannock Motor Sales Co.

Phone 28. MAXWELL DISTRIBUTORS—All prices F. O. B. Detroit. Phone 28.

1008-10-12 Grove St., between Tenth and Eleventh Sts., Boise, Idaho.