

MOTOR PRODUCTION LEADS OTHER INDUSTRIES

Future of Industry Seems Secure and Brilliant.

VAST OUTPUT INVOLVED

Replacements Alone Require New Cars to Number of 1,800,000 Annually, Says Statement.

NEW YORK, Aug. 27.—With automobile production ahead of most other lines, with high standard of wages compared with other countries, with continued increase in national wealth, the future of the motor industry seems very sound, the opinion of C. A. Dana, president of the Pariah manufacturing corporation, in a statement to the National Automobile Chamber of Commerce.

Dana, who heads the Spicer Manufacturing corporation, the Sheldon Axle & Spring company and Salisbury Axle company, as well as the Pariah interests, calls attention to the fact that the latest government figures (for 1919) show the value of manufactured products to be \$2,588,000,000 and of farm products to be \$2,961,000,000, or nearly five times the buying power of the year 1900.

The manufacturer estimates that the average replacement market for cars is 1,800,000, though in lean years the public may not buy as heavily with consequent larger markets in the years of plenty.

Dana also called for protection on agriculture, revision of taxes and economy in government expenditure.

Car Replacement Large.

The letter says in part: "Now, where are we in the automobile industry? It appears there are 5,200,000 registered passenger cars and trucks, which are approximately equal to the production of the last five years. Consequently we may assume that all other cars produced previously are scrapped. To maintain this number of cars on the road it is necessary to produce annually 1,800,000 cars, or about the production of last year, and this figure does not take into consideration any new users of cars among those of our present 100,000,000 population, or for the steadily increasing population.

Furthermore, the motor vehicle as a producer of wealth is continually increasing the potential buying power of the country. The government figures for the last seven years, the period of the rise of the motor vehicle, show a vast increase in wealth as follows:

Year	Manufactured Products	Farm Products
1880	\$ 2,000,000,000	\$ 500,000,000
1900	4,700,000,000	11,400,000,000
1919	4,700,000,000	11,400,000,000

Note: All figures from the United States bureau of the census, with the exception of 1919 farm products figure from United States bureau of crop estimates.

Better transportation undoubtedly played a large part in this phenomenal increase in values.

Production on Increase.
"An encouraging factor in the car and truck situation is that production is 47 per cent ahead of last year. One large maker is 126 per cent of the second quarter of 1920, whereas the bulk of the other companies are operating at 107 per cent ahead of the first quarter 1921, or 57 per cent of the second quarter 1920. Trucks are doing much better, one-third better than they were the first of the year.

"Without reciting figures it is a well-known fact that the buying power of the distribution is more widespread and a greater number of persons. Therefore, we are not well justified in feeling that the buying power per annum for automobiles is on an average at least 1,500,000 cars annually, and that the same will be increased by larger population and greater distribution of wealth?

"Can there be any debate as to the advisable use of trucks for short hauls? On an actual comparison of rates by trucks or railroad for a distance of 100 miles, the cost of service to the buyer by a prompt delivery and the reduction of inventory and working capital that is otherwise tied up in the longer time for transit.

Brilliant Outlook Ahead.

"Such is the brilliant future we have to consider for our industry. One must remember, however, that ever since the Biblical Joseph's time there are years of famine as well as years of plenty, and the investor who is he who fills his granaries and reserves, or surplus account, with enough grain and money in the times of plenty to provide for the years of famine period. Such is the period we are passing through now, and the average of 1,800,000 cars annually may not be maintained in 1921, but in 1922 or 1923 the deficiency is sure to be made up or you will have to contend that the automobile is leaning in favor, and few will assume responsibility for such a statement.

"We can indeed look confidently to the future of this industry, when we realize that steel production is less than 20 years ago, copper mining is at a standstill, the market for raw cotton is glutted, sugar has dropped from 23 cents to 14 cents wholesale, and rubber has fallen from 54 1/2 cents to 12 cents.

"While we with all others must share in this after-war and worldwide deflation, both investor and manufacturer can most assuredly look forward to the continuation of our industry, that has together with the railroads and the telephone, has welded in our very social, economic and industrial life."

SPOKANE BUSINESS IMPROVES

Branch Manager for Mitchell, Lewis & Staver Here on Visit.

J. L. Brown, manager of the Mitchell, Lewis & Staver company branch at Spokane, made a flying business trip to Portland last week-end, spending Sunday in the city. Mr. Brown is very optimistic regarding the outlook for business in the Inland Empire. There are a few sections in which the wheat crop is short, says Mr. Brown, but by far the largest part of the Spokane territory has produced a bumper crop, the greatest crop in its history. Farmers are now busy harvesting and hauling this crop to the warehouses, and if they get anywhere near a fair price they will feel more inclined to loosen up and spend the money necessary in improving their ranches and homes. Incidentally, they will be looking for new cars to replace the old.

FAMOUS BARRIER ON COLUMBIA HIGHWAY EAST OF THE DALLES BEING OVERCOME.



CAPE HORN BEING BLASTED TO MAKE WAY FOR ROAD.
The view shows Cape Horn, which is being partly blasted away to make room for the highway. A tunnel through this mass of stone was found unsafe on account of the formation, and it was found necessary to blast the road along the side of the rock above the railroad. Great care has had to be observed on account of the proximity of the railroad. This great rock is located on the south bank of the Columbia river between The Dalles and the Deschutes river and should not be confused with the Cape Horn on the north side of the river opposite Crown Point.

WEEKLY AUTO QUIZ

THIS department is designed to aid motorists by asking and then answering in simple language questions relative to motorcar operation. The questions, prepared by experts, are asked in one issue and answered in the next.

Answers to last week's questions:

What to Do When Stalled.

1. It isn't hard to imagine the nervous tension which would be created by occupants of a car stalled on a railroad crossing, particularly if a train was in sight. This situation calls for rapid calculation and action and not hysterics, as is the rule in the majority of cases. Many disasters at railroad crossings which could have been avoided have nevertheless occurred merely because the drivers of the cars in question lost control of them. For instance, almost every car which stalls can be started within a very few seconds, because the engine is warmed by running, the oil is liberally up and the fuel mixture is at a good point of vaporization. All that is required is to shift the gears to neutral and step on the starting switch, disengage clutch, engage low gear and clutch and be off. But the nervous driver instead of using this procedure forgets to disengage his gears, switches off his ignition if it is on or does not switch it on if it is in the off position and then tries to start the engine. If he is fortunate enough to start the engine, he probably stalls it again while trying to get the car in motion, letting his clutch pedal in too quickly or not opening the throttle enough to take the car load when clutch is engaged. After the second stop he is more rattled than ever and usually gives up in despair, leaving the car upon the tracks. The thing to do is endeavor to start; if the starter will not work try the hand crank. If there is not enough time to do the latter, push the car off the tracks if movable, and if not—flag the train.

When Brakes Fail.

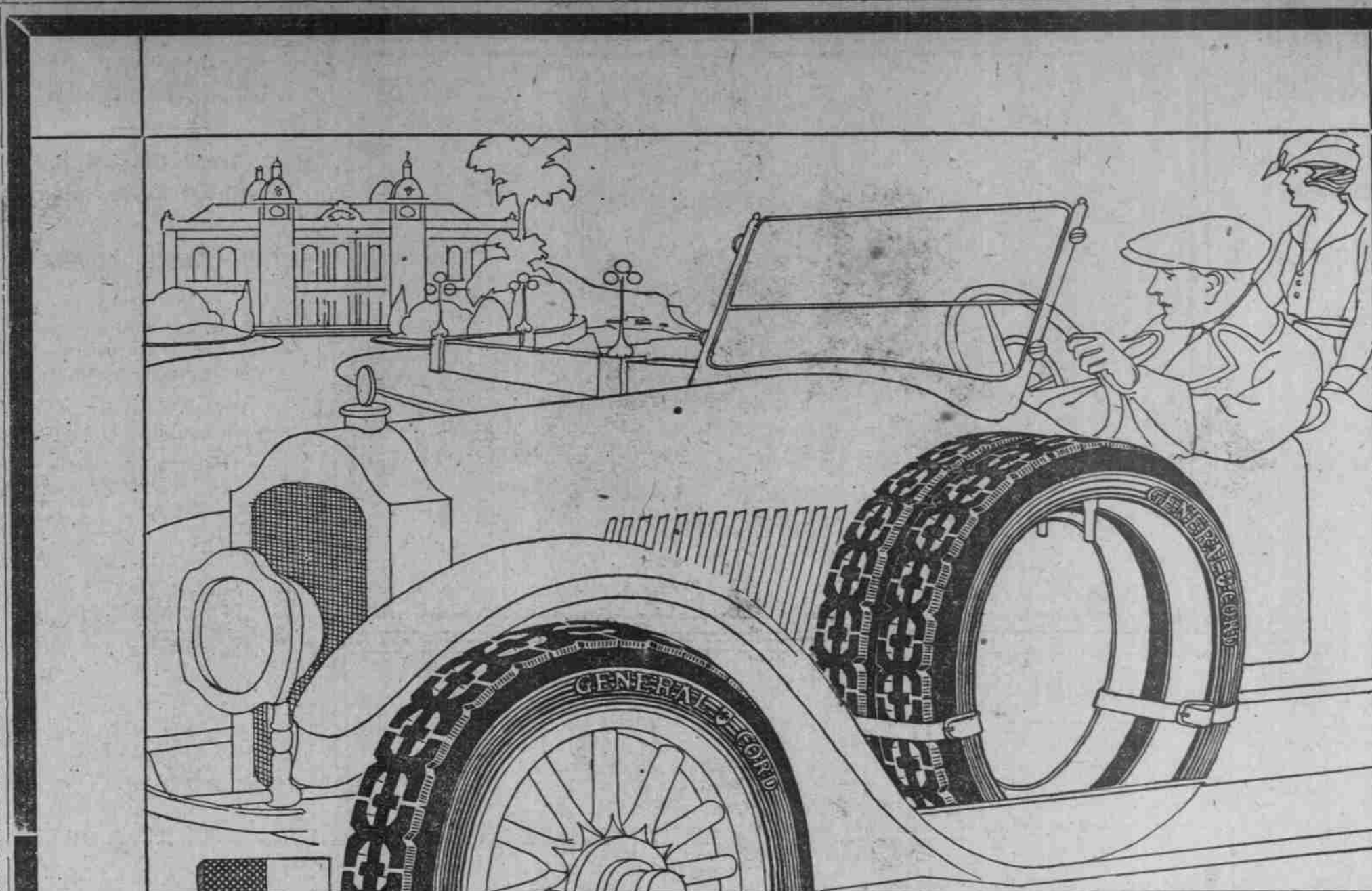
2. To stop a car when the brakes refuse to hold there is only one procedure—switch off ignition, engage lower gears and engage the clutch, using the engine as a brake. Play safe by inspecting the brakes regularly, and testing them at the beginning of every trip.

Proper Place for Spark.

3. The spark should be advanced when engine speed is increased to gain maximum power from each explosion with the minimum of fuel. Retarded spark at high engine speeds also causes carbon deposit in cylinders, consumption of more fuel and in extreme cases overheating.

To Test Compression.

4. You can tell when a piston is on compression stroke by noting the position of the valves or by opening petcocks or removing spark plugs from the cylinders. Using the valve posi-



The fact that one of the first successful cord tires was a General Tire—undoubtedly has had something to do with the present position that The General holds in the tire world—but the main reason is that every General Tire—Cord or Fabric—Truck or Passenger Type—for small cars or large—has gone a longer way to make friends than its price promised.

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other types, use of too thin an oil on surfaces of the type which requires lubricant, and tight adjustment.

Clashing Noise in Clutch.

4. If you should attempt to shift gears after disengaging the clutch and every attempt would result in clashing noise when the gears came into contact that trouble may lie in the clutch brake not engaging with the releasing member of the clutch when latter is disengaged, or the brake may be worn so it will not function properly even though the clutch cone does touch it. The fault may also lie in above mentioned clutch troubles such as dragging or spinning. When the clutch is released, the part which is acted upon by the foot pedal must come to a stop before low speed gears are meshed. The clutch brake is designed for this purpose, and also acts when clutch is disengaged for second and high gear shifts.

Oil Consumption in United States.

10. There were 427,579,000 barrels of oil, 42 gallons to a barrel, consumed in the United States last year. Of the total amount produced, there still remained 5,813,000 barrels. The

gasoline consumption was 4,256,428,005 gallons, the excess supply for the year being over 626,118,000 gallons.

This Week's Questions.

1. Did you ever take a long run in your car and were obliged to travel at a low rate of speed because of the engine's cooling system heating up to the danger point as soon as you attempted to speed up? Do you know what caused this?
2. Why are dual valves used on some engines?
3. On high spark each explosion in an engine occurs before the respective pistons reach top center or beginning of power stroke. Why is it that the explosions do not force the pistons back down the cylinder the opposite way they are supposed to travel instead of their keeping on up on compression stroke after an explosion occurs?
4. Why are the front wheels of a heavy car usually not as easily affected by road defects as those of the light weight car?
5. Do spring leaves usually break just when the wheel of the car strikes a bump, or on the rebound of the spring after the jolt is encountered?
6. How many types of cylinders are there and what are the different types?
7. What precaution should be taken when removing a rear wheel?
8. How can small holes be vulcanized in an automobile top at home?
9. Is the clutch of a new car more apt to slip than one which has been used to some extent?
10. About how much oil deposit is there in the world and for what length of time is the supply estimated to last? (Copyright 1921, Thompson Feature Service.)

SIGNS WILL BE PROTECTED

California Association Road Markers Maliciously Destroyed.
SAN FRANCISCO, Cal., Aug. 27.—Thoughtless or malicious persons cost the California State Automobile association thousands of dollars a year in replacement of road signs shot to pieces or removed. Measures are being taken by the association to prevent this ruthless waste, and co-operation of the county and municipal police authorities will be asked. James W. Johnson, chief engineer of the association, and in charge of the signs, declared that most of the signs were shot at from the highway and the enamel chipped off, destroying their usefulness. "Other signs," he said, "had been unbolts and used for camp stoves and other purposes. Many of the metal posts supporting the signs, too, had been destroyed. Some of the signs, far in the interior of the state, had been erected at great expense for the guidance of motor tourists. The association, he said, was now preparing to proceed against destroyers of signs."

FRANKLIN MILEAGE IS BIG

1908 MODEL RUNS 300,000 MILES; STILL STRONG.

Salt Lake Owner Says He Wouldn't Swap Old "Iron-sides" for All the King's Horses.

SALT LAKE CITY, Aug. 27.—

A total mileage of 300,000 miles and still going strong. That's the record of a 1908 Franklin touring car, owned by Lew Robertson of Salt Lake City, who says he wouldn't swap his old "Iron-sides" for all the king's horses. For the past 13 years, the old car, which is still doing valiant daily service, has averaged better than 23,000 miles yearly. According to Robertson, it's still capable of holding a gauntlet of from five to 60 miles per hour with comfort. Mr. Robertson has just completed a trip from Salt Lake City to San Francisco, a distance of 1900 miles, in a little better than 62 hours, averaging a trifle more than 20 miles to the gallon of gasoline. He has toured all of the western states and various parts of western Canada, many times. On one trip through Yellowstone park the car carried seven passengers, as well as bedding, tools and all the paraphernalia of camping. Concerning tire mileage Robertson has had few worries. One tire, put on his Franklin in 1913, gave service up to 1918. He states that he has never kept an exact tab on the mileage obtained from his tires because the speedometer wore out before they did. One tire gave a mileage of 25,000 miles, with the rest turning in an average of better than 20,000, with the exception of one, on which he obtained an adjustment.

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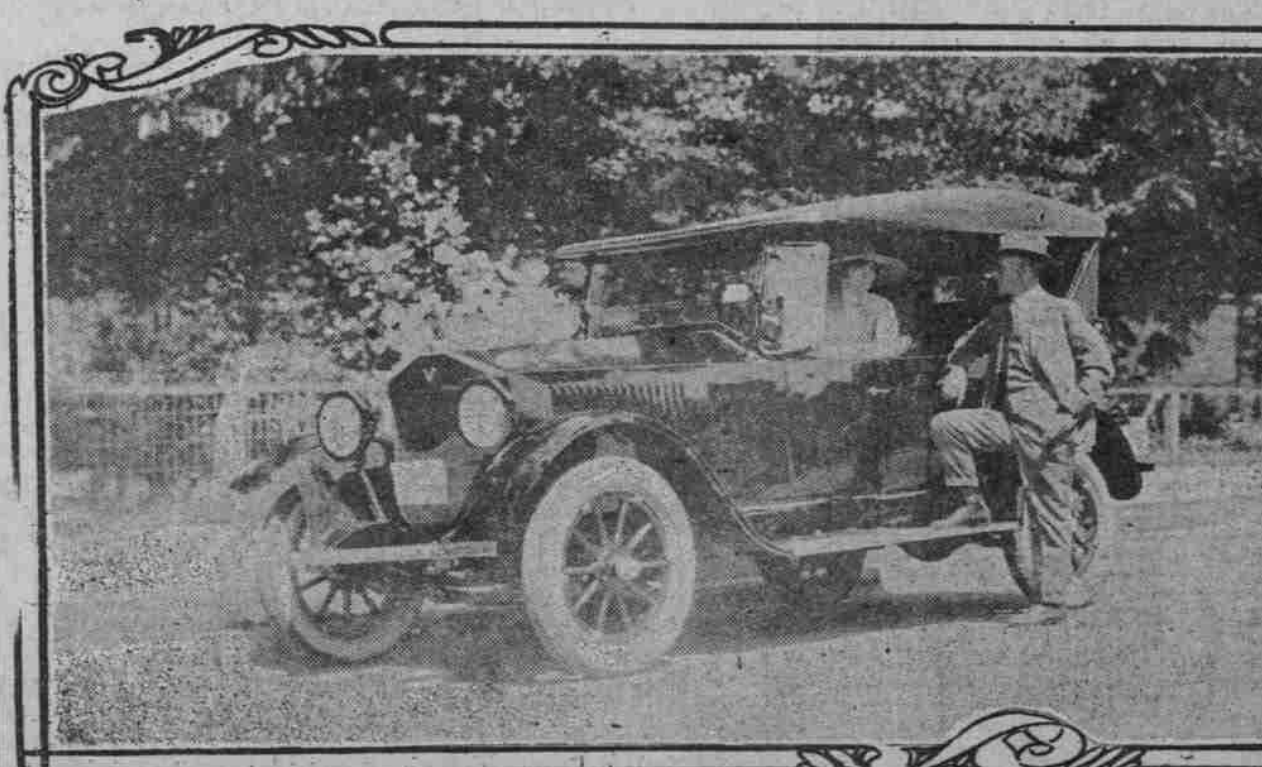
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ROSEBURG PHYSICIAN AND NEW VELLIE CAR JUST PURCHASED FROM LOCAL DEALER.



Dr. R. J. Chapman of Roseburg, standing beside his new Vellie six, model 48, touring car, recently purchased from the W. R. DeLay Motor company, local Vellie and Peerless distributors. Mrs. Chapman is seated at the wheel. This is the third Vellie which Dr. Chapman has purchased, both the others having given great satisfaction, he declared.