



AUTOMOTIVE SECTION

BUY YOUR CAR NOW.



Use 100,000,000 Pounds of Copper in Manufacture of Motors in 1922

New York, Sept. 15.—Approximately 100,000,000 pounds of copper will be utilized this year in the manufacture of automobiles in this country, according to a survey just completed by the Copper and Brass Research Association. This is an increase of 30,000,000 pounds over 1921, and about 750,000 pounds more than 1920, in which latter year the automobile industry consumed 7.63 per cent of the total copper production.

Commenting on the use of copper in the automotive industry the survey says, in part:

In pre-war days, particularly since the time when the automobile definitely emerged from the luxury class, the demand was in excess of the supply. Consequently there was practically no incentive to cheaper material costs; and copper, brass and bronze were widely used in construction, where their properties, according to the best principles of machine design, established by generations of engineering experience, made them of service.

During the war years an abnormal condition arose. The price of copper increased, its use was restricted to essential industries and the automobile manufacturer was forced to substitute inferior metals.

In 1919, with removal of wartime restrictions, copper was still relatively high, and the automobile manufacturer continued this practice of substitution. During the period of inflation after the armistice there was a tremendous increase of manufacturing facilities, in order to keep up with the increasing demand for automobiles.

Then came the "buyers' strike" in 1920. The demand for automobiles dwindled, and, in an effort to revive sales, manufacturer vied with manufacturer in successive price cuts.

Under insistent pressure to lower costs automobile manufacturers turned their attention first to the more expensive metal—copper—and carried still further the principle of substitution, first generally established during the war years.

Substitution took many forms among them being sheet-iron water tanks in place of brass or copper; malleable or cast-iron water line carburetor bowls in place of brass; die-cast babbit main bearings and bronze-backed babbit.

Other substitutions were cast-iron bushings in place of bronze in camshaft bearings, rocker arm bearings, pump-eyes, shackles, bolts, brake equalizers, etc. (In many cases there are no bushings at all); cut steel or aluminum alloy small gears, for pump-drive, timer shaft, etc.; cast-iron water pump casing and impeller.

in place of bronze or brass; aluminum or pressed steel hub caps in place of nicked brass, aluminum, enameled iron or sherardized steel wind shield trim, body trim, hardware and hood trim, steel latches in place of brass; steel screws, nuts and bolts in place of brass; malleable or cast-iron special fittings, such as caps, covers, plugs, glands, control links, in place of cast-brass.

REVERSE TIRES TO PROLONG LIFE

Rubber Expert Points Out Advantages of Changes.

Chicago, Sept. 15.—Tire life may be increased to an absolute maximum, it is asserted, by reversing the front and rear tires when the latter have been on long enough for the tread to be worn off.

This will often result in an additional 1,200 or 1,500 miles of service, where otherwise a blowout would in all probability occur in a very short time if the change was not made.

"The easily appreciated reason for this," says Mr. Shiffrin, is that the wear on a rear tire is anywhere from 20 per cent to 60 per cent greater than on the front, due to the excessive amount of hard usage from skidding on quick stops and from spinning the wheels on quick starts.

Ford Owners—

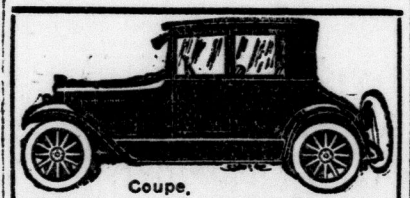
WE will continue to give service on all FORD cars as heretofore; also we will maintain a full stock of "GENUINE" FORD REPAIR PARTS, and we solicit a continuance of your patronage, assuring you our constant endeavor will continue to be

"SUPER-FORD SERVICE."

Reliance Garage, Ltd.

Even not considering these facts, the rear tires are bound to wear faster because of the work of car propulsion. "Again, the casing may be cut severely and a shoe inserted. This weak spot will soon be spread larger if the tire is allowed to remain on the rear wheel, but will usually give long service if transferred to the front, where it is not subjected to the harsh action instigated by the drive shaft.

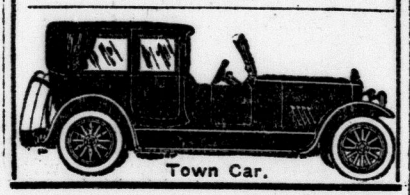
"Tire manufacturers realize these conditions, and when they place a 10,000-mile guarantee on a tire, it means that it must go at least 10,000 miles on the rear wheels. For



Coupe.

State chassis you have and type of body you wish—sedan, coupe, limousine, town car, touring, sport roadster, etc. Bodies built in exclusive design to your ideas if desired.

"You need a Closed Body for next Fall, Winter and Spring driving, consequently place your order now, as we require about four months to make delivery."



Town Car.

this reason it is frequently possible to secure 12,000 or 15,000 miles from the same tire if used on the front wheels exclusively, even considering that its potential life is no more than that guaranteed by the factory."

There IS a Difference in Gasoline

Are you using gasoline containing coal oil? Are you constantly having carbon taken out of your motor? Are your spark plugs coated with carbon? Do you have carbon knocks in your motor?

If your motor has any of these symptoms then you will be interested in overcoming them by using the best gasoline—

White Rose Gasoline

Refining gasoline from crude oil is a separation process and can be likened to that of skimming cream from milk. Skim the top layer from milk and you have pure cream.

Dip a little farther and you get cream and milk. Below this, milk only. If the bottle of milk stands long enough you will have some water in the bottom of the bottle.

If, in our process of separation, we dipped a little farther, as one would dip farther into a milk bottle for cream, getting both cream and milk, in gasoline refining we would get coal oil and gasoline.

"White Rose" can be likened to the "cream" of crude oil. It starts easily at all times.

It is high-grade "Scientifically Refined" gasoline that contains no impurities to retard the action of the carburetor in vaporizing—that responds immediately to the spark. The fire is instantaneous; the discharge is elastic; the force is compelling—and this means a smooth-running motor; it means full, even power and economy.

White Rose Gasoline insures a smoother running motor. You will have no unnecessary motor repair bills. You will operate your car more economically.

White Rose Gasoline is always of uniform, high quality, quick starting, smooth acceleration, full power and long mileage.

EN-AR-CO FREE LUBRICATING SERVICE

Your motor will run better and last longer if the Lubricating Oil is taken out every 500 miles and fresh oil put in. We do it for you.

EN-AR-CO MOTOR OIL
charging only for oil used.

It is just as important that the best grease be used as it is to use oil. Let us fill your transmission and differential with

EN-AR-CO GEAR COMPOUND
charging only for grease used.

CANADIAN OIL COMPANIES, LIMITED

Canada's Largest and Oldest Independent Refiners of Gasoline and Lubricants

London Stations:

*COR. DUNDAS and BURWELL STREET

DUNDAS STREET, NEAR POTTERSBURG

*COR. WORTLEY ROAD and STANLEY STREET

*Star denotes stations where free oil changing runways are operated.

Overland

Down to \$785

Twenty-five to Two Hundred Dollar Reductions Are Made Possible by Increased Business and Production

The New Prices

Effective Sept. 20, 1922

F.O.B. Toronto—Government Taxes Extra

OVERLAND

Touring and Roadster ..	\$ 785
Coupe	1,095
Sedan	1,295
Chassis	645
Special Touring	950

WILLYS-KNIGHT

Touring and Roadster ..	\$1,800
Coupe	2,650
Sedan	2,800
Chassis	1,650
7-Passenger Touring	2,100
7-Passenger Sedan	3,200

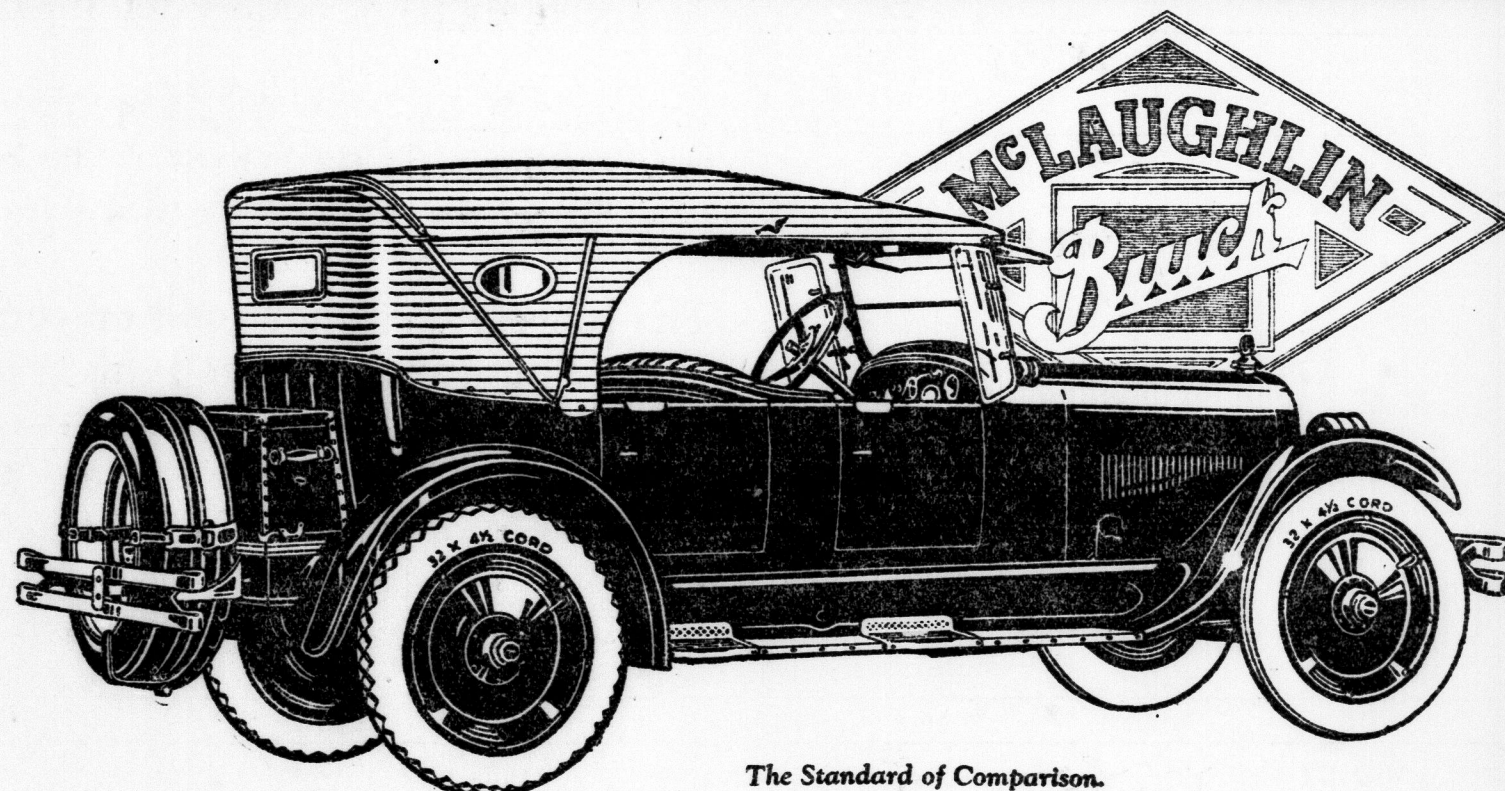
Dealers wanted in unoccupied territory to share in the increased volume of business that is bound to follow.

WILLYS-OVERLAND LIMITED—TORONTO, CANADA

J. W. McLAUGHLIN, Overland and Willys-Knight Dealer

345-349 Dundas St., London.

"Ask the Man With the White Hat."



The Standard of Comparison.

A Stylish Sport Touring But First of All a McLaughlin-Buick

Beautiful in appearance, rich in contrasting colors, spirited and eager in performance, the new 1923 McLaughlin-Buick Sport Touring is an outing companion of the finest sort.

Nickel and beveled plate glass are liberally used to best advantage. Not in years has McLaughlin produced a car so strikingly smart nor so richly appointed as the new 23-55 Special.

STANDARD EQUIPMENT INCLUDES

Disc wheels, double bar nickel plated bumper front and rear, top of genuine English Burbank with natural wood bows and nickel-plated slat irons, adjustable sunshade, microscope, windshield wiper, glass covered instruments, gasoline gauge on dash, clock, cigar lighter, approved transmission lock, engine primer, handsome luggage trunk, drum-type head and cowl lamps, front snubbers, walnut steering wheel, heavily nicked radiator, aluminum scuff plates, guard rails, windshield wings, dumb-bell radiator filler cup with motometer, cord tires, etc.

PRICES F.O.B. OSHAWA, GOVERNMENT TAX EXTRA.

Master Four—23-35 Regular, \$1235; 23-34 Special, \$1275; 23-35 Special, \$1295; 23-36 Coupe, \$1545; 23-37 Sedan, \$1950; 23-38 Touring Sedan, \$1865; Master Six—23-41 Touring Sedan, \$2725; 23-44 Special Roadster, \$1695; 23-45 Special, \$1725; 23-47 Sedan, \$2765; 23-48 Coupe, \$2675; 23-49 Special 7-Passenger, \$2095; 23-50 Sedan, \$2095; 23-54 Special, \$2295; 23-55 Special, \$2375.

McLAUGHLIN MOTOR CAR CO., LIMITED OSHAWA, ONT.
Subsidiary of General Motors of Canada, Limited

Branch House: Bathurst and Richmond Streets, London.

McLAUGHLIN-BUICK