

VALUABLE
ADVICE

Motor Car Service Department

PROBLEMS
SOLVED.MOTORS
AND THEIR
CAREPROTECTION FOR POLISHED
METAL.

Bright metal work can be protected by using a mixture of one pound of lard, an ounce of gum camphor and a little lamp black, melted together.

WORTH REMEMBERING.

Before washing a car, a mixture of kerosene and lubricating oil should be forced between the body crevices with a squirt gun, or allowed to seep in from the application of a brush.

CONCERNING OVERSIZE TIRES.

Oversize tires fit the same rim as the regular size tires, but are larger, with a greater air capacity, and consequently their use results in increased riding comfort and lower operating cost.

FOR CLEANING SMALL PARTS.

When cleaning small parts of the chassis, such as oil holes on the brake cross shaft, brake connection, spark and throttle connections, etc., use an oil

50 Miles
A Gallon

DAYTON, O., Sept. 27.—A few months ago C. F. Kettering, president of the General Motors Chemical Company, a subsidiary of General Motors, predicted an average of 50 miles to a gallon of gasoline in four years.

Only recently Kettering's firm came out with a new fuel which may produce the result he prophesied. The fuel is called ethyl gas and consists of ordinary commercial gasoline to which a small quantity of ethyl fluid has been added. It is the result of long and patient experimenting in the General Motors Research Laboratories here, during which automobiles were run hundreds of thousands of miles on this and other test fuels.

In the tests more than 2,500 substances were tried out, until the one finally adopted was found to be commercially practicable. The fuel is a wine-colored liquid, the color being caused by the ethyl fluid.

What brought on the decision of the General Motors engineers to find a new fuel was the trouble motorists have been experiencing with knocking. Through research into this bugaboo of motoring by Thomas Midgely, Jr., now general manager of the chemical company that is producing ethyl gas, brought him to the conclusion that "knocking" was not caused by faulty ignition, or by carbon igniting the gas before the spark could.

Instead, he discovered this phenomenon was due to a high pressure gas wave, traveling at high velocity, striking the side of the combustion chamber or top of the piston. Considerable damage could be done by this wave, even to wrecking the engine.

On this hypothesis General Motors engineers sought a remedy and finally came upon ethyl gas as the solution. They figured that if the compression of the engine could be increased greater power and economy could be obtained. But increased compression produced the knock, which they finally have been able to forestall by the use of the ethyl gas as fuel.

Addition of only one-tenth of one per cent, by volume of the ethyl fluid to the gasoline is said to be enough to produce the desired result. Its use is said to eliminate loss of power, waste of gasoline and carbonization.

It is a step towards the fulfillment of Kettering's prediction of 50 miles on a gallon of fuel.

No. 23 WHAT'S THE BEST TITLE
FOR THIS PICTURE?

FIRST PRIZE, \$5.00, AND FIVE PRIZES OF \$1.00.



SUBMIT YOUR TITLES ON A POST CARD.

Five dollars will be paid by The London Free Press to the person sending in the CLEVEREST title for the scene pictured above. For the next best five titles The Free Press will pay \$1.00 each. The rules are simple: Titles must not exceed eight words in length and must reach "The Title Contest Editor, The Free Press, London, Ontario," before Wednesday night, October 3, 1923. Each contestant may submit three titles, writing them on a post card. Only one post card will be considered. Only one prize will be awarded to one person. Sign your name and address plainly. The prize will be mailed to the winners when the awards are made. Results of the competition will be announced on Saturday, October 6, 1923. Explanation of titles are not necessary. Employees of The Free Press are not eligible for this contest. Do not enclose post cards in envelopes.

NO. 22—WINNER: "BEARDED AND BEING SHORN."



For the first time in two or three weeks the Contest Editor received a sufficient number of good titles to allow some to be placed in the "honorable mention" column. Picture No. 22 did not prove a stumbling block like some of the previous cartoons, and the result was a real supply of witty titles.

Now, Picture No. 23 should come in the same class. A book agent is often made the butt of many jokes. Make up a few or think up some new ones and send in your titles. If you look carefully at Picture No. 23 you'll see that the business man's visitor is a book agent and that he is not an individual playing a concertina.

Here are the winners for Picture No. 22:

\$5—"Bearded and Being Shorn." Rose A. Brakeman, 179 Penrose street, Sarnia.

\$1—"The Doughboy." Jack Holmes, 92 Windsor avenue, London.

\$1—"Playing a Loan Hand." Ray L. Francis, R. R. No. 1, Kirkton.

\$1—"The Feminine Touch." Alfreda Holkamp, 16 Nelson street, Stratford, Ont.

\$1—"A Revenue Cutter in Action." William J. Rabb, Box 416, Harrison, Ont.

\$1—"Taking a Leaf Out of a Popular Book." Mrs. F. London, 76 Bruce street, London.

The following titles are worthy of mention:

"And Put a Stamp On It Too!" W. S. Peace, 158 John street, London.

"Don't Forget the Stamp." J. C. Brakeman, 179 Penrose street, Sarnia.

"Don't Forget the Stamp." Mrs. Hooley, 140 Giles street, London.

"The Sinking Fund." R. L. Slater, 303 Romeo street, Stratford.

"Still Passing the Bait." F. Gordon, Abbottford, Hespeler road, Galt.

"I'm Going Shopping, Not to Church." D. M. Coulter, 137 Doro street, Stratford.

"A Modern Shynock." Mrs. Dill Coristine, Forest.

"Hey! I Am No Rockefeller." Mrs. A. Hamilton, 482 Church street, Windsor.

"The Almighty Dollar." C. Jeanne Black, 95 Gloucester street, Toronto.

"What's That For, Church Collection?" William G. Bugler, 1034 Trafalgar street, London.

"Who Said 'The Woman Pays'?" Ernest Violet, General Delivery, Woodstock P. O.

"Don't Forget to Put On the Stamp." Frank —, 24 Tecumseh avenue, London.

"Just Dues." Edna C. Jennings (no address).

"A's Regular Customer." Fenton Wilson, 22 Main street, Simcoe.

"The Personal Touch." Margaret MacKay, Box 445, Rodney.

"Signing the Peace Treaty." A. Yeo, 7 Comfort Place, London.

"The Sign of Peace." Golding Hulst, Sanatorium, Tilsonburg, Ont.

"Touching Father." H. B. Rutherford, 570 William street, London.

"Gimme!" James T. Fisher, 516 King street, London.

"The Gold Digger." Irene Vanderhart, 50 Peter street, Kitchener.

"The Flower of the Family Needing Dough." Fred Young, 80 Emory street, London.

"The Family Flower and Dough." Walter Hodge, 463 Dorinda street, London.

"The Common Interest." Miss E. Main, Stratford, Ont.

"The Latest Model of a Dough Needer." Mrs. Schneider, Box 868, Brampton, Ont.

"To Order." William H. Donaghy, 2238 Bloor street, Toronto.

"Overhead Charges." Arthur Kearns, R. R. No. 7, Parkhill.

"A Touch, A Touch, I Do Confess." R. Brickwood, 614 Cartwright street, London.

"Making a Name For His Wife." Mrs. P. St. John, 768 Dundas street, London.

"The Will of the Conqueror." Amy Hesse, 385 Grey street, London.

The Oil For the Farmer.—A bottle of Dr. Thomas' Electric Oil in the farmhouse will save many a journey for the doctor. It is not only good for the children when taken with colds and croup, and for the mature who suffer from pains and aches, but there are directions for its use on sick cattle. There should always be a bottle of it in the house.—Advt.

An excellent pipe joint cement can be made from a mixture of brown shellac and flake graphite.

The only remedy for worn gears is replacement; however, chains may generally be adjusted to eliminate the back lash.

Wear in the timing gears and their bushings, or chain and sprocket, will effect the operation of the engine and cause noise.

A flat tire on a front wheel is much more dangerous than one at the rear. A front tire blowout may turn the car into a ditch.

Smashed hub caps should be replaced immediately. Otherwise they permit dirt and grit to enter and wear the bearings, while grease is oozing out.

For safe backing, especially at night, a lamp with a white light is advised. This can be mounted on a bracket and controlled by a cowl-board switch, or a special switch, which automatically works when the gear-shift is in reverse position.

Motor Buying Public
Jolts the Statisticians

That the American motor-buying public refuses to be bound by the statistician's hard and fast dictum that the point of "saturation" is near at hand is the conclusion of The New York Herald, in calling attention to the growth of the automobile industry to the point where it vies with building as an industry.

The Herald observes editorially: "It is calculated by the Cleveland Trust Company that the American people have spent \$6,600,000,000 in the last four years for automobiles, two-thirds as much as they have spent in the same period for new buildings. Is such a ratio likely to be permanent? Or will it gradually swing more in favor of housing as the 'saturation point' is approached for automobile sales?"

CAR FOR EVERY FAMILY.

"Such questions raise the further problem of just where the saturation point is. It seemed impossible at one time that there could ever be more than one automobile to every five families. When this goal was reached in 1917 there was talk of the saturation point in earnest. Economists and statisticians could prove that it had already been reached. But the great American public paid no attention to the statistics, and now there is one automobile to every two American families.

"In 1900 there were 13,824 motor vehicles registered in the United States. In 1910 there were 468,497. In 1917 there were 5,104,321. In 1921, 10,464,000; in 1922, 12,239,114. On July 1 of this year the bureau of public roads now announces there were 13,002,427, an increase of 764,052 since the first of the year.

"How much more can the total grow? Will 15,000,000 be the limit? With fewer than 25,000,000 families in the United States that seems a liberal estimate. But in consideration of the present number of automobiles, and of the rate at which the total has been growing, it would be rash to set such a limit. In California there is an automobile for every family. In Iowa, Nebraska, South Dakota and Kansas there is one for

every five persons. What has happened in these states is at least possible in many of the others.

OUTPUT STILL MOUNTING.

"Doubtless for any given place and time there is a saturation point. But the saturation point itself keeps moving upward with the gradual increase of wealth. Even if the saturation point should be reached the automobile plants would not shut down. Men in the trade estimate the replacement market to be close to 2,000,000 cars a year. This allows an average use of six years for each car, which seems conservative enough.

"Meanwhile current production forges ahead. When 2,205,197 motor vehicles were produced in the United States in 1920 there were persons who declared that such a fantastic output could not go on, that the people who were buying automobiles did not know what they were doing, and that the bottom would soon fall out of the market.

"When, in 1921, automotive production was only 1,661,550 cars, the first time in the history of the industry, with the exception of the war year 1918, that production in any one year had fallen below that of the previous year, the drop was pointed to as a vindication of these predictions.

BIG FOREIGN MARKET.

"But in 1922 production reached the unprecedented record of 2,659,084 motor vehicles. Now, in only eight months of the present year, 2,692,000 automobiles have been turned out, a greater amount than for the whole of last year. And production this August, at 248,000 cars, was substantially above the average rate for the eight months.

"When and if the saturation point is reached in this country our manufacturers will doubtless devote increasing attention to the foreign field. Whereas in the United States there is one automobile to every eight and one-half persons, in the world outside of the United States there is only one for every 350 persons, a ratio of 100 to 1. Surely there are possibilities in an American invasion of that outside market.

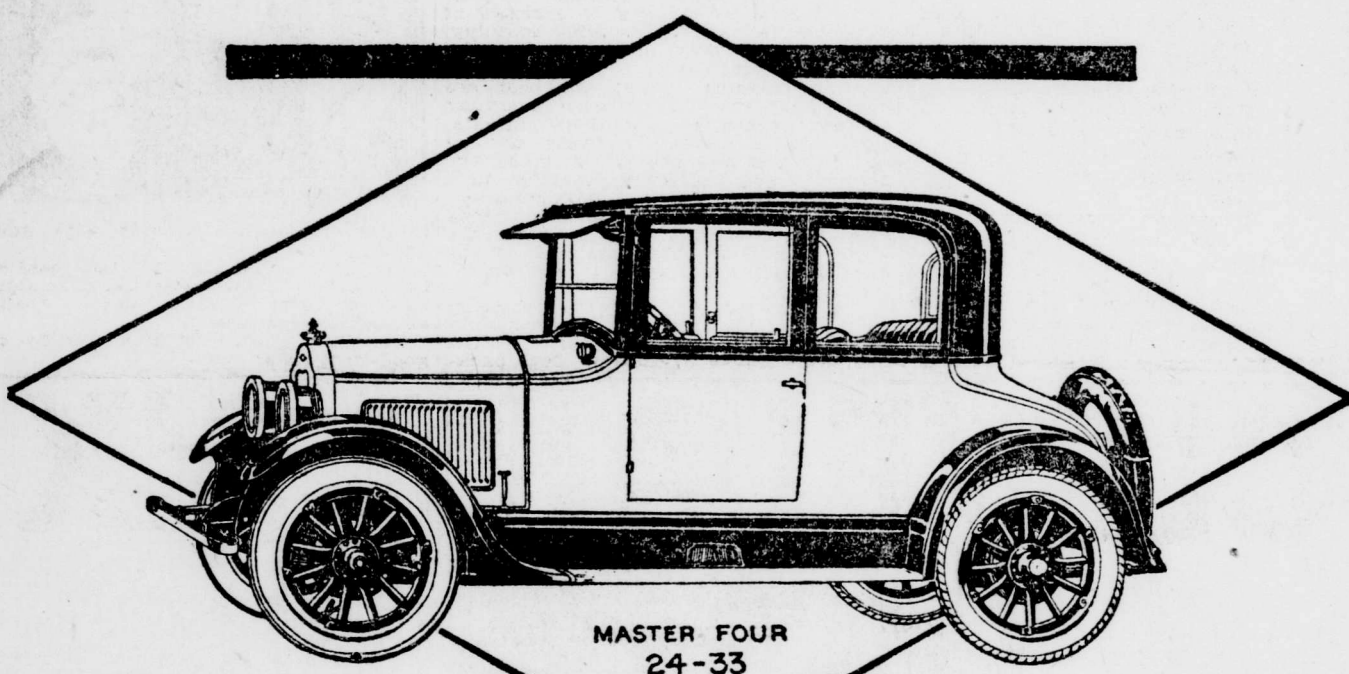
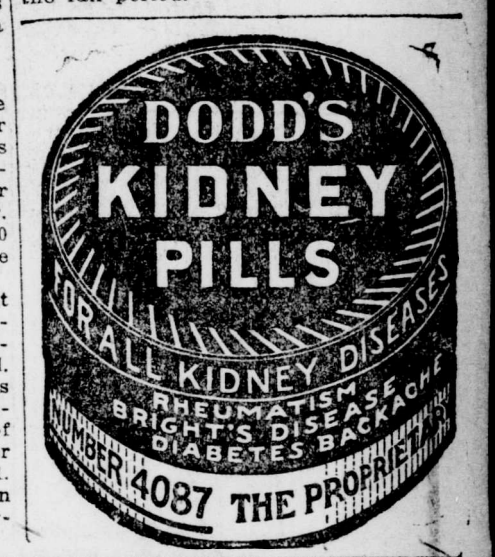
NASH.
Sales of Nash cars for the first eight months of 1923 surpasses the mark established for the full 12 months of 1922. This announcement by E. H. McCarty, general sales manager of The Nash Motors Company, is supplemented by the statement that, following the announcement of the new Nash models early in August, demand has been far in excess of production.

"As a matter of fact," said Mr. McCarty, "the factory was oversold in August one thousand cars and will be oversold to a greater extent in September. August eclipsed July in point of sales, a condition that is unusual.

"The new Nash models in both the four and six-cylinder lines met instant approval on the part of the buying public. Embodiment of many improvements and refinements and at no increase over previous prices, these new cars are establishing for Nash Motors a new record in public demand and volume of sales.

"Reports received by us from dealers on the various fairs held throughout the country since August 1 tell of public interest in the Nash line. This interest is confined to no particular sections of the country, but is a condition that is general.

"Every indication points to a continuance of heavy demand throughout the fall period."

Ample Room
for Four

THE unquestionable dependability—the strikingly handsome appearance—and the decidedly low cost of the New 1924 McLaughlin-Buick "Master Four" Four-Passenger Coupe make it the logical choice of business and professional men.

On account of its ease of control—its luxurious finish and appointments, "milady" will find it the ideal car for shopping, while its roominess and generous luggage compartment add to its desirability as a family car.

To the recognized McLaughlin-Buick standards of reliability and performance have been added four-wheel brakes, a new and more beautiful body design and many other improvements. The result is a closed car of a quality and appearance never before obtainable at so moderate a cost.

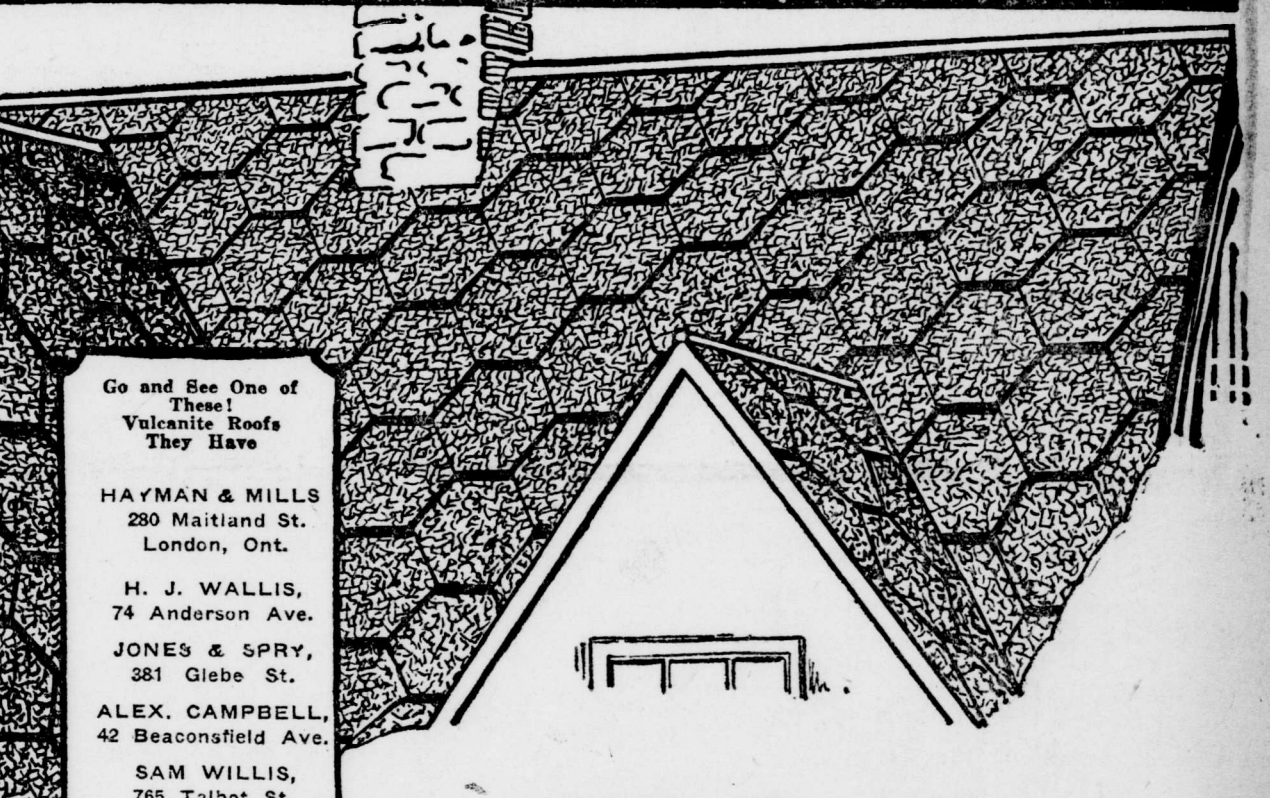
McLAUGHLIN MOTOR CAR CO., LIMITED
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OSHAWA ONTARIO

BRANCH HOUSE: BATHURST AND RICHMOND STREETS.

HAVE YOU SEEN THE 1924 CARS?



McLAUGHLIN-BUICK

YOU Put the
Vulcanite Hexagon Slab
Through These Severe Tests—

SEND the coupon below for a sample of the Vulcanite Hexagon Slab Shingle. You put the sample to the tests listed here. Do your best to harm it. You never saw a roof which will stand up like Vulcanite.

Then you will realize that in its heavy, rigid toughness; its fire-resisting and weatherproof qualities; its beautiful and distinctive appearance—lies the solution to your roofing problem.

Vulcanite Hexagon Slabs, because of their exclusive, patented design, insure double protection everywhere—a tight seal against any weather—a deep tile effect and a heavy shadow line. More square inches of roofing than in any other slab shingle. Made from tough, long-fibre, pure rag felt, impregnated through and through with finest asphalt. Quickly and economically laid over roof boards or right on top of the old shingles. Finished in green and red crushed slate.

Vulcanite Roofing of the same high quality also comes in individual shingles, four-in-one slab shingles, and in rolls, both slate surface and smooth finish—for home, farm and industrial buildings. You can identify the genuine by the Vulcanite name and the Beaver Trademark.

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