

Clashing Gears Are Eliminated

Packard Company Has Machine Which Rounds Off Sharp Edges of Teeth.

A few years ago there was a grinding and clashing of tortured metal when the gear-setting lever of an automobile was shifted into "first" at the start, or from one speed to another. It was accepted as necessary for a time.

Engineers of the Packard Motor Company, however, conceived the idea that if all the teeth of each gear were rounded off in some manner each time a change in speed was required the gears would slip quietly into mesh with a force on the shifting lever no greater than that which could be applied by the unassisted little finger.

A new car was taken from the plant and given a long trip. After the return Col. J. G. Vincent and other engineers took the car all apart and studied the gears. It was found that the shifting from one speed to another had chipped and ground off the sharp edges of the gear teeth and that they had been rounded off until they resembled the top of the ordinary steam radiator used to heat a home.

An expert in the making of machines for the manufacturing of gears was called in to work with company engineers to devise a machine which would accomplish this rounding off operation before the gears were put into a car. The simple looking little machine, no larger than a baby chair and with a cutter no larger than the tapered end of a lead pencil, has been taking the noise of clashing gears out of Packard cars ever since.

This cutter, through the employment of a "cam," that important little discovery that allowed men to make machines which are almost human in their operation, trims off the edges of a gear tooth just as easily and with somewhat the same motion that grandmother used to turn a peeling off the end of a potato. Automatically it passed about the round gear, trimming off one tooth after another until all are done, and when it has finished it signals one man who takes care of a whole battery of machines that it is ready to start work on a new gear wheel.

Stutz Territory Grows

The Stutz Motors company of California, composed of an impressive group of prominent Pacific coast business men, has been appointed distributors for Stutz cars in northern California and Nevada, according to an announcement by the Stutz Motor Car Company of America, Inc., of Indianapolis.

Cadillac Victoria

Re-New-Ed

"The Hansen Plan"

Makes This

"A Safe Place to Buy"

Open Sunday

J. H. Hansen Cadillac Co.

HA 0710 Farnam at 26th

Vaudevillians Tour Entire Circuit in Car Bought in East



The vaudeville team of Gordon and Healey, which played the World theater last week, is out after the unique record of making the entire Panhandle circuit without setting foot in a Pullman car.

The team travels in a Studebaker coupe, in which it left New York on May 17 of this year.

They visited Detroit, Toronto and

Chicago, Los Angeles, Salt Lake City, Minneapolis, Winnipeg, Edmonton, Calgary, Spokane, Seattle, Vancouver, Bellingham, Tacoma and Portland. They are now swinging back along the circuit in New York.

While in Omaha they congratulated O. N. Bonney, local dealer, on the performance of the car under all sorts of road and weather conditions.

Wind Resistance Lowers Mileage, Says Reo Dealer

"Amazingly few motorists pause to consider in these days of good roads and refined automobiles that they are driving faster than they did five years ago with a consequent sacrifice of gasoline economy," says Mr. Opper of the Opper Motor company.

"Tests and calculations show in different instances that a car driven at 30 miles per hour and having a certain body shape requires 22.5 horsepower to overcome the wind resistance alone. This same car driven at 40 miles per hour requires only 4.8 horsepower to overcome wind resistance. Another car with a different body shape requires 10 horsepower at 30 miles per hour and only 2.5 horsepower at 40 miles per hour.

General Motors Produced 87,500 Cars in October

Alfred Sloan, Jr., president of General Motors, made the following statement in relation to current conditions in the motor car industry, as reflected by the operations of General Motors: "Believing that any actual facts

Town Brougham Car.

First models of the New Peerless five-passenger town brougham, the addition of which to the company's line of attractive body styles was announced last week, have come through production and are being shipped to distributors. This latest New Peerless creation, built complete in the big Cleveland plant, combines the practical utility of a small capacity enclosed car with the luxurious comforts of a sedan. It is sure to be an object of admiration wherever seen. It is a beautiful design and will be immediately singled out in any gathering of automobiles as a car of quality and distinction. The color is Collins blue.

Plane Flight Lost Recital For Pianists

Artists Attempted to Fly From Los Angeles to Frisco; Lost in Fog.

Guy Moler and Lee Pattison, pianists to be heard in Omaha in piano recital at Brandels theater on Thursday evening, November 22, under the auspices of the Tuesday Musical club violinist, have had the unusual experience of being lost in a fog 10,000 feet above the Pacific ocean.

In an effort to keep an engagement for a recital on a Sunday afternoon in San Francisco the day after one given in Los Angeles, it was found necessary to make the distance by airplane. They started Sunday morning at six. They cruised along at the rate of 90 miles an hour, a dense fog completely obliterating the land and sea two miles below. After five hours of wandering in the air the plane made a nose dive two miles down.

The dive was made successfully. Flying a few hundred yards from the ground, suddenly a mountain loomed up out of the mist and a forced landing was made. The plane tipped over and it took three men to right it. The two pianists decided to trust to their feet and shouldered their suitcases for a start across country.

They were soon picked up by a driver in a flier. They rode as far as Lebec when the plane overtook them and they climbed in again.

It was soon after that they scraped the side of a water tower and came to earth in a cemetery. They decided that trains were good enough for them in the future. They lost the opportunity for their first San Francisco concert.

To Celebrate Day in Appropriate Way

Special Dispatch to The Omaha Bee, Shenandoah, Ia., Nov. 10.—Sunday will be observed as Armistice day in Shenandoah with appropriate services in all the churches and the war veterans will attend the Congregational church in a body.

But the people of Shenandoah wish to add to this by an observance on Monday.

The banks will close all day, and the business houses close from 1:30 on. The Shenandoah-Red Oak football game will be the attraction of the afternoon. After the game the Rotary club of Red Oak and the Kiwanis club of Shenandoah will have a supper at the Hotel Mizpah. The auxiliary will entertain the legion men and their wives and families at an oyster supper.

Closed Car Sales Make New Records

Enclosed Drive Limousine Continues Most Popular of Pierce-Arrow Models.

This is the year of the closed car. That at least is the apparent lesson which will be established by the sales figures of 1923. And the finer the car the greater the demand for the enclosed type of body. The sale of Pierce-Arrow enclosed models has risen over 64 per cent of the entire production this year, according to L. E. Corcoran, general sales manager of the Pierce-Arrow Motor Car company.

"While the sale of enclosed models naturally predominates at this time of year," states Mr. Corcoran, "the surprising part of the prevailing trend to the closed car is that it composed almost a major part of the June, July and August orders. This trend is not regarded as a fleeting tendency, but as a permanent buying policy on the part of those people who have come to regard their automobile purchasing as an investment and naturally find the enclosed car the one that is productive of the most pleasure and service, as well as the maximum comfort."

Closed Cars Popular.

"Old King Winter no longer puts a blanket on the automobile business as in earlier days," says A. Willis, son of Andrew Murphy & Sons company, local dealers in Durant and Star cars.

"Before car heaters and the modern curtains that open with the doors were invented the automobile owner could not comfortably ride in frosty weather, and, furthermore, motor car engines did not always perform well at zero temperature.

"Now all that has changed. The modern automobile, if it is rightly made, performs well in all sorts of weather and so comfortably can it be fitted for winter that it is really a pleasure to ride.

"The closed car, too, has played a great part in that change. The finest coachman of olden times could not rival the comfort and dignity of the modern closed car. Well protected from the elements, warmed by the car heater, still a generous expanse of plate glass window makes the car as light and cheery as an open model and excellently ventilated at will.

"The closed car will never entirely displace the open models, but it is rapidly gaining. Manufacturers find the demand for closed models now nearly 50 per cent of production and still climbing."

500 Oaklands Daily.

Pontiac, Mich., Nov. 10.—Extensive alterations and new machinery equipment which have resulted in practically rebuilding the entire interior of the Oakland Motor Car company factories have finally been finished.

The machinery and alterations have involved an outlay of approximately \$2,000,000, which is in addition to the new \$2,000,000 Fisher Body corporation factory completed a month ago adjacent to the Oakland factory to build Oakland bodies.

This outlay of \$4,000,000 gives the Oakland plant a capacity of 500 cars a day, twice its previous capacity. At the present time the company has reached an output of 200 cars daily, which is above the peak production of the banner month of 1922.

New Kind of Metal Lessens Weight; Increases Power

The results anticipated by the Hupp Motor Car corporation, the first manufacturer with large distribution to combine duralumin connecting rods with aluminum-copper pistons, have been confirmed in tests, which show that this combination, plus the counterbalancing crankshaft, is responsible for a number of the greater performing abilities in its new cars.

Duralumin, as its name implies, is a metal more durable than aluminum. It is composed of aluminum, manganese, silicon, copper and iron. These tougher metals, fused with aluminum in their proper proportions, result in a product that has even greater strength in compressibility than steel, and one admirably adapted to usage in the modern efficient motor car, inasmuch as it materially lessens weight without decreasing strength, increases power and adds to economy and smoothness in operation.

Auto Buyers Are Prompt in Meeting Payments

South Bend, Ind., Nov. 10.—According to Arthur J. Morris, founder of the Morris plan banking system, motor car owners who buy automobiles on the installment plan meet their payments with remarkable promptness. Morris, who addressed a gathering of bankers from east and west who have made a two-day study of the method used by the Studebaker dealers in handling this class of business, gave figures showing that of 2,000,000 people who bought cars in the past 12 months on the installment plan over 99 per cent met their payments on time or in less than 30 days. He declared that the delinquency and loss ratio from these sales was so low as to compare favorably with any other class of commercial or industrial credits.

Proper Spark Plugs Aid in Starting Cold Motor

One of the motorist's chief difficulties in cold weather is in starting his engine. Though quick starting is largely a matter of carburation and getting gasoline into the cylinders in combustible form, it is also true that spark plugs play a considerable part.

How to make difficult starting easy, as related to spark plugs, intimately concerns the question of fouling. Proper design of the gap setting is perhaps the biggest assistance that efficient spark plugs give. The "bend" used in all Champion plugs facilitates quick starting for two reasons—it presents an ideal surface for the electrical discharge across the gap, and prevents oil from lodging at this important point.

Marmon Wins Race.

Competing against many of America's and Europe's best racing cars, a Marmon stock touring car, carrying standard equipment, won the 1923 international mountain race on the Klausen hill in the Swiss Alps, according to word just received by the Nordyke and Marmon company of Indianapolis. The race is known among European racing enthusiasts as the "Grand Prix of the Alps," and it is classed second only in importance to the annual French Grand Prix race.

Red Cloud Fire Department to Join State Organizations

Special Dispatch to The Omaha Bee, Red Cloud, Neb., Nov. 10.—Through the kindness of D. H. Kaley of this city, the Red Cloud fire department intends uniting with the state organization of volunteer firemen. The department has wanted for some time to join this organization, but has been handicapped by lack of funds.

Mr. Kaley has offered to pay all fees necessary to keep them in good standing.

Airplanes From Lincoln Make Trip to Clarinda. Clarinda, Ia., Nov. 10.—Four airplanes from the Lincoln (Neb.) factory made an advertising trip to Clarinda, spending the day and night at Lake Crabill and demonstrating flights.

WILLYS Coupe-Sedan

Standard \$1450 f.o.b. Toledo



De Luxe \$1550 f.o.b. Toledo

The Difference is Finish

The famous Willys-Knight Coupe-Sedan is now available in two finishes; De Luxe, in rich blue, nickel trimmed, with black superstructure and running gear, at newly reduced price; and Standard, in black, with washable Spanish long grain upholstery, at a still greater price saving. Doors front and rear—no seat climbing! A demonstration will reveal the reason for this fine car's great popularity.

Other new low prices: 5-pass. Touring \$1175; 2-pass. Roadster \$1175; 7-pass. Touring \$1325; 5-pass. Country Club \$1635; 5-pass. Sedan (Standard) \$1795; 5-pass. Sedan De Luxe \$1895; 7-pass. Sedan \$1995; all prices f.o.b. Toledo. We reserve the right to change prices and specifications without notice.

WILLYS-OVERLAND, Inc.
2562 Farnam Street Phone HA rney 0353
Factory Branch—Open Evenings
CITY DEALERS
Opocensky Brothers 5134 S. 24th Street
Folsom Auto Co. 5915 Military Avenue
Wicklund Motor Co. 2921 Sherman Avenue
Byron L. Fowler Fort Crook
Council Bluffs Overland Co. 602-4 East Broadway

KNIGHT

HUDSON SEDAN \$1895

Freight and Tax Extra

On the Finest Super-Six Chassis Ever Built

Heretofore a moderate-priced closed car has meant an inferior chassis. Now at a saving of hundreds of dollars you buy in HUDSON a car of positive reliability, chassis excellence and finest performance.

These are the lowest prices of all time on the Hudson Super-Six. They make both the Sedan and the Coach the most outstanding values in the world.

HUDSON COACH \$1375

Freight and Tax Extra

KILLY MOTOR CAR CO.
AT lantic 7461 2060-62 Farnam Street Omaha, Neb.

DODGE BROTHERS COMMERCIAL CAR

Merchants are growing more and more particular about the appearance of the delivery cars they send to their customers' homes.

The reason is perfectly clear to anyone who has ever analyzed his impressions on seeing a handsome, dignified delivery car draw up in front of his own, or his neighbor's door.

Good appearance is one of the three foremost attributes of Dodge Brothers Commercial Car. The others are low upkeep cost and long, dependable service.

Panel Commercial Car \$995 f.o.b. Detroit; \$1095 delivered

O'BRIEN-DAVIS AUTO CO.
28TH AND HARNEY STS. TEL. HARNEY 0123
Sales and Service Branches at Council Bluffs, Ia. Denton, Ia.

