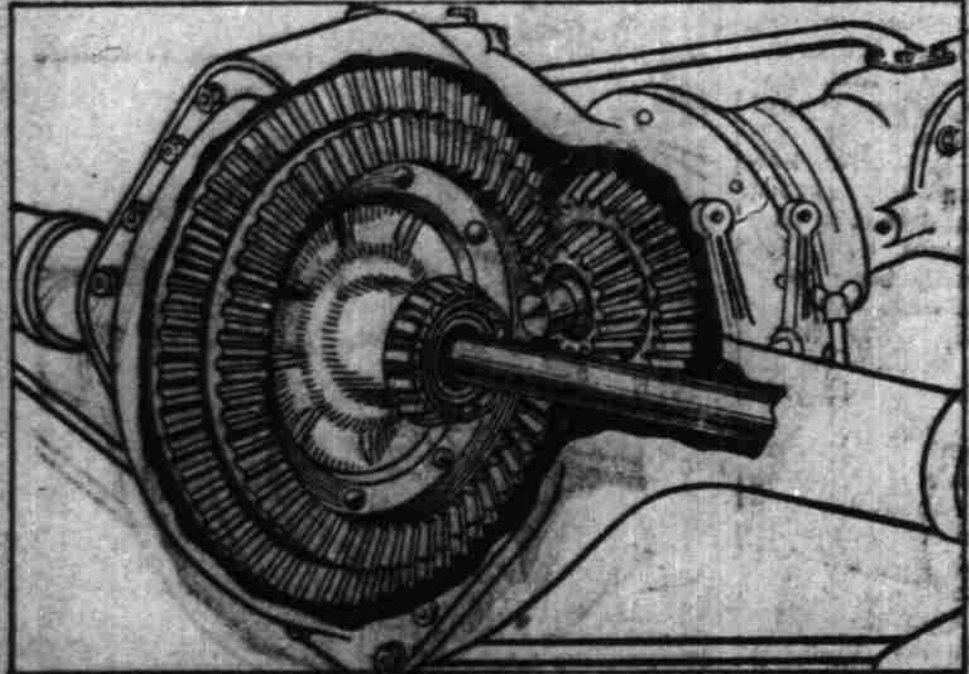


# MOTOR CAR GOSPEL



## TWO-SPEED, DIRECT-DRIVE AXLE FEATURE OF 1914 CADILLAC CAR

## NO OIL TROUBLES ON STUDEBAKER MOTOR CARS



Showing new Cadillac axle—See description

Cadillac motor cars for the 1914 season will continue to be built on a single model of chassis with a four-cylinder motor. However, they are being fitted with new features, some of them quite radically different from anything heretofore brought out by the Cadillac company. Refinements of little details add comfort for the passengers and make it all the easier to operate the cars.

The most radical of the new features of these new Cadillacs is the adoption of a two-speed, direct-drive axle to replace the conventional single type. Although such an idea of affording two different gear ratios in the final drive member has already appeared on one high-priced car, the Cadillac company is the first of the medium-priced manufacturers to take it up.

However, the Cadillac scheme differs materially from that of the other make referred to in the manner of design and method of working out of the mechanical details. Instead of having a single-bevel-driving pinion connected with the propeller shaft, and a single-bevel-driven car as in the ordinary construction, the Cadillac is to be fitted with two bevel pinions and two bevel gears. This affords two different gear ratios, each driving direct from the engine to the axle without intermediate gearing. The low gear gives a ratio of 3.66 to 1, while the high is 2.5 to 1.

Interlocking Devices Employed.

Clutches engage either set of gears individually, suitable interlocking devices preventing the engagement of one set while the other set is still operating. The changing from one set to the other is a very simple matter, and one which is noiseless. A small switch located on the right front door of the body and within convenient reach of the driver does the selecting of the gear combination, while the actual shifting is done by simply pressing in the clutch pedal. Throwing the switch one way magnetically draws the corresponding clutch into position, and the pressure on the clutch pedal pulls its set of gears into action, at the same time releasing the other set.

The representative of the Automobile was given a demonstration of

this new feature. The only perceptible change which the shifting to the 2.5-to-1 ratio made was in the slowing down of the speed of the motor for the same car speed as that maintained with the 3.66 to 1 ratio. There was absolutely no noise connected with the changing of driving gears. Shifts from one set to the other were made at speeds of 25, 30 and 40 miles an hour with equal facility, it being easy to tell when the 2.5 to 1 gear was operating by the easier running of the engine and the smoother operation of the car as a whole. There was a marked freedom from vibration when traveling at high speeds.

According to the Cadillac engineers, the low drive is especially adapted for city driving, where starting, stopping and slowing down are frequent and where cautious operation is necessary. Where speeds of about 15 miles or more per hour are permissible and desirable, the high direct-drive gear ratio is of special advantage. With it any given speed of the engine produces an increase of about 42 per cent in the speed of the car, or conversely, to maintain any given car speed the engine speed may be materially decreased as compared with that required to propel the car at this speed with the low gear ratio.

At an engine speed of 700 revolutions per minute with the low direct gear engaged, the car will travel about 21 miles an hour, while with the high gearing it will go about 30 miles an hour, the engine speed still remaining constant.

This increase in car speed in its relation to that of the motor is generally claimed to effect a saving in gasoline for a given mileage, while friction is reduced due to slower operation of the motor. This, too, should affect the gasoline consumption.

It should be understood that this new axle feature does not affect the transmission gearing in any way, that is, with either set of axle gears operating, the shifting of gears from first to second, to third or to reverse in the gearbox is the same as though the ordinary axle were used. Thus this two-speed axle makes possible six different speeds forward.

## AMERICAN CARS AND GOODYEAR TIRES WIN OVER COMPETITORS

George C. Beckley, distributor of the American cars and the Goodyear tires, reports steady increase in business with the rapid recognition of both autos and accessories. This week he has received from J. Ashman Beaven, a well-known local motorist, the following letter:

Honolulu, T. H., Aug. 8, 1913.  
George C. Beckley, Esq.,  
Honolulu, T. H.

Dear Sir: I recently received from you a "Goodyear Tire Book" and other "Goodyear" advertising matter together with the announcement that you are local agent for the "Goodyear" tires, will make any necessary adjustments here in Honolulu.

My experience with "Goodyear" tires has been eminently satisfactory and it may interest you to know that I have a "Goodyear" tire on the right front wheel of my Ford touring car which has up to date run 7500 miles without a puncture, blow-out, rim-cur or any other tire trouble whatever. The tire is naturally somewhat worn but at this writing it looks good for another 500 miles at least. Some record, that, eh? The tire is an ordinary "Goodyear" clincher, 30x3.

Very truly yours,  
J. ASHMAN BEAVEN.  
The splendid feats of the American "Six" are told of in the following Western Union night letter:  
Glenwood Springs, Colo.,  
July 14, 1913.  
American Motors Co.,  
South Meridian street,  
Indianapolis.

## IRON-CLAD GUARANTEE WITH EVERY EXCELSIOR AUTO-CYCLE PUT OUT

The following guarantee goes with every Excelsior auto-cycle purchased from the Royal Hawaiian Garage, the authorized agents of the Excelsior Mfg. & Supply Co., Chicago, Ill.

Each and every Excelsior Auto-Cycle is guaranteed to be free from imperfections in workmanship and material, and any part which proves defective within the year of its manufacture will be replaced free of charge, subject to our inspection and judgment when sent to us transportation charges prepaid.

The damages for which we make ourselves liable in this guarantee are limited to the replacement of defective parts. A reasonable charge will be made for labor when we are required to insert the parts.

This guarantee does not apply to damage, caused by wear and tear, or by neglect, misuse or abuse of the machine.

Equipment and accessories manufactured for us (such as the magnetos, hubs, saddles and tires) are fully guaranteed by their respective makers, and if such parts develop defects the matter should be taken up immediately with them. If proper attention is not given in such instances, our Part Department will gladly take

The way to keep an automobile in good shape and to avoid expense for repairs and replacements is to use first, oil; second, oil; and third, more oil. If buyers would exercise just a little care in learning a few of the elementary principles of their machines, there would be little or no difficulty about this service proposition. Undoubtedly many dealers and salesmen are themselves to blame for this condition. They neglect to properly instruct buyers or fail to impress upon them the absolute necessity of studying their instruction books while their machine is new. The result is that the novice driver allows his oil to become used up, or fails to screw down grease cups. As a consequence, bearings run dry, pistons and cylinders become damaged, and the man conceives the idea that his car is to blame.

The golden rule of the motor car is to look after the lubrication. A machine will merely stop if it runs out of gasoline. But if the oil supply gets low, or if the water is allowed to evaporate or boil away, serious damage may result before the motor stops because of seizing of pistons or burning out of bearings. It is very much easier and occupies very much less time for an owner to fill his oil reservoir and screw down his grease cups, than it is to drive to a garage and wait for a man to do it for him.

On the Studebaker car it is so easy to replenish the oil supply that a child can do it. And there are so few grease cups, and these few so easily accessible that there is no excuse for their being overlooked. As a matter of fact, on these Studebakers, things have been made so easy for the owner-driver that it is the easiest kind of a job to take care of the car. A few minutes a day are all that are required. But these minutes must be given regularly and systematically, or the machine will suffer. Oil and regularity will avoid many automobile annoyances.

## FORD ENGINE REAL FEATURE

By all counts the Ford costs less to operate than any other car. Individual experiences vary, according to the temperament of the person who drives the car, and the condition under which it is maintained. Many of our owners drive their cars at a cost of less than a cent a mile. A few of them double this cost. One owner drove his Ford a hundred and nine miles at a total cost for gasoline and oil of eighty-one cents—a not exceptional experience. By all tests the Ford's cost of maintenance is demonstrated to be the lowest.

The Ford is a standardized car. The Ford Motor Company devotes all its time and facilities to the building of one model—one car, the Model T chassis. Several different bodies, of course, but the one chassis, the one car, as after all is said and done, the chassis is really the car.

Now, consider what this means—the purchasing in maximum quantities of all materials, parts and accessories, with the consequent low price that always follows quantity orders, with cash in hand for prompt payment. Consider with an output of two hundred thousand or more cars in one year, what a force goes behind the buyer for the Ford Motor Company when he enters the market of supply—eight hundred thousand wheels, eight hundred thousand tires, one million lamps, all of the one size and one model; ninety thousand tons of steel, and spot cash in payment, no notes, no mortgages, no promises, no delays—spot cash. You cannot measure such a tremendous influence in its effect on price.

up the matter with the manufacturer for adjustment.

To save delay, a letter giving full particulars should be sent to us stating the number of the engine, and the name of the dealer through whom the machine was purchased.

This guarantee covers Excelsior Auto-Cycles only when purchased through our authorized agents, EXCELSIOR MOTOR MFG. & SUPPLY CO.

## SUITABLE FOR BOX GARDENING.

Fuchsias, salvias, geraniums, Shasta daisies, begonias, springerli, smilax and many, many others; also strawberry plants now ready. Mrs. Taylor, 153 Hotel St., Tel. 2339, or Nuuanu Valley Nurseries.—Advertisement.

Every man wants to climb twice as high as he can ever hope to get.

TO CURE A COLIC IN ONE DAY  
Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. E. W. Grove's signature is on each box.  
PARIS MEDICINE CO., St. Louis, U.S.A.



### The following is the much looked for 1914 Cadillac announcement, and it shows that Cadillac leadership in scientific motor car development is once more strikingly demonstrated:

strikingly demonstrated. A NEW QUALITY OF LUXURY

#### A NEW ELEMENT OF EFFICIENCY

Each year you have looked to the Cadillac for the real and substantial progress in motor car development.

You have looked to the Cadillac for the great essentials in the practical motor car.

And you have not looked in vain.

Now conceive, if you can, a Cadillac with its essential functions sharpened, accentuated and refined.

Conceive such a process of refinement culminating in an entirely new riding quality of unexampled ease.

That is precisely what has come to pass in this new car.

The principal contributing factor—the two-speed, direct-drive axle—is described in detail elsewhere.

The Cadillac Delco electrical system of automatic cranking, lighting and ignition, the first practical system ever made and first introduced by us, has, after experience with it, on 27,000

#### A NEW SOURCE OF ECONOMY

Cadillacs, been still further developed, improved and simplified and the slight attention required from the user materially reduced.

The carburetor has been improved, its efficiency and its well-known economy increased. It is hot-water jacketed and electrically heated to facilitate starting in cold weather.

The rear springs are six inches longer.

The body designs are new and strikingly handsome.

Front seat passengers may enter or leave the car at either side.

These and many other refinements of essential details make for a greater and a better Cadillac and serve to more firmly establish its position as America's leading motor-car.

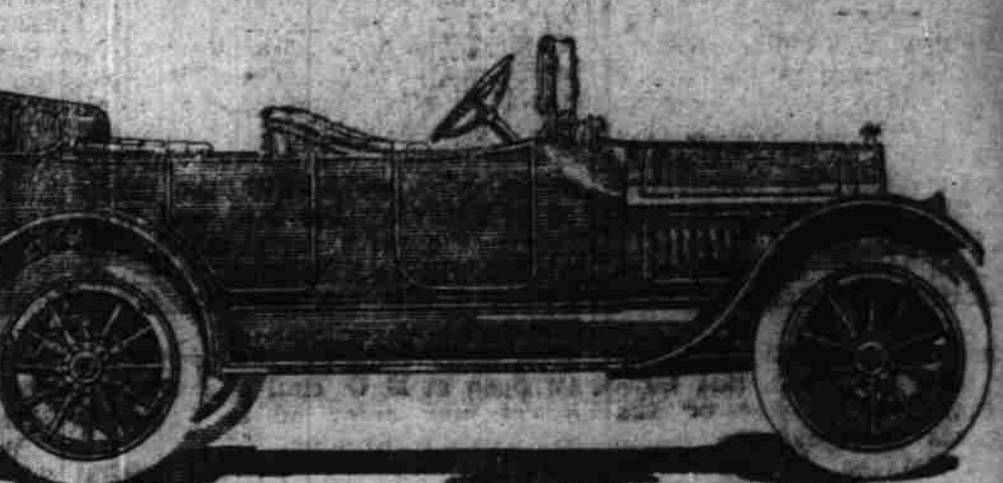
The Cadillac Company has never disappointed you in the smallest particular or in a single promise.

We promise you again, in this new car, a positive revelation in motor-car luxury.

### SPECIFICATIONS IN BRIEF

ENGINE—4-cylinder, 4 1/2-inch bore by 5 3/4-inch stroke; silent chain-driven cam shaft, pump shaft and generator shaft, enclosed valve mechanism. Five-bearing crankshaft. HORSEPOWER—40.50. Cooling—Water, copper jacketed cylinders. Centrifugal pump; radiator, tubular and plate type. IGNITION—Delco dual system. CRANKING DEVICE—Delco Electrical, patented. LUBRICATION—Cadillac automatic splash system, oil uniformly distributed. CARBURETOR—Special Cadillac design of maximum efficiency, hot water jacketed and electrically heated, air controlled from driver's seat. CLUTCH—Cone type, large, leather-faced with special spring ring in fly wheel. TRANSMISSION—Sliding gear, selective type, three speeds forward and reverse. Chrome nickel steel gears running on five Annular ball bearings. CONTROL—Hand gear change lever and hand brake lever at driver's right, inside the car. Service brake, foot lever. Clutch foot lever. Rear axle gear control, electric switch. Throttle accelerator, foot lever. Spark and throttle levers at steering wheel. Carburetor air control, hand lever on steering column. DRIVE—Shaft, to two sets of bevel gears of special cut teeth. AXLES—Rear, full floating type; special alloy steel live axle shaft; two speed direct drive. Front axle, drop forged I beam section with drop forged yokes, spring perches, tie rod ends and roller bearing steering spindles. Front wheels fitted with Timken bearings. BRAKES—One internal and one external direct on wheels, 17 inch by 2 1/2 drums. Exceptionally easy in operation, both equipped with equalizers. STEERING GEAR—Cadillac patented worm and worm gear sector type, adjustable. 78-inch steering wheel with walnut rim aluminum spider. WHEEL BASE—120 inches. TIRES—35-inch by 4 1/2-inch; Q. D. demountable rims. SPRINGS—Front, semi-elliptical. Rear, three-quarter platform. FINISH—Calumet Green with gold stripes. STANDARD EQUIPMENT—Cadillac top; windshield, full lamp equipment, gasoline gauge, electric horn, power tire pump, foot rail and cocoa mat in tonneau of open cars, robe rail, tire holders, set of tools, tire repair kit, Warner Autometer.

CADILLAC MOTOR CAR  
COMPANY,  
DETROIT, MICHIGAN



## The von Hamm-Young Co., Ltd., Agents

## WILLYS TRUCKS PROVING POPULAR; VON HAMM-YOUNG CO. IS BUSY

A great deal of interest is being taken in the 3-4 ton Willys Utility truck, which the von Hamm-Young Company have been displaying lately.

This new utility truck is the most practical and serviceable truck of its size ever built. It is intended for any kind of city and suburban delivery service. It works more simply, more economically, more rapidly and more effectively than most trucks of much larger size. It is a new development.

Unlike the average small truck, it is not a built over car or a redesigned pleasure chassis. It is a real heavy truck in all of its parts, in its entire design, in its whole construction and in its economical operation. For instance, the powerful 4-cylinder motor is controlled by a patented governor; it cannot be driven over 18 miles an hour; it has quick demountable solid tires, 34 by 4 1/2 front, and 36 by 3 1/2 rear; it has an unusually rugged pressed steel frame, doubly reinforced at points where it will receive the greatest strains; the wheel base

Cadillacs, as usual, are the leaders as one of these popular cars was shipped to C. J. Schoening & Company, Walluku, Maui, another was sold to Mr. H. L. Cornwell, another to Mr. C. R. Forbes, and still another to Captain O'Shea of Schofield Barracks. Mr. Elias Jones purchased a seven-passenger, six-cylinder Packard which he will place in the rent service in Honolulu. Mr. H. Ono purchased a delivery wagon which is to be used in connection with his bakery service.

New Electric. The von Hamm-Young Company has added the Detroit-Electric to their lines and have sold a very handsome four-passenger car of this popular make to Mrs. S. E. Halstead. This is the most attractive electric car in Hawaii, being finished with French gray upholstery and fitted with side doors.

The von Hamm-Young Company is displaying this week two different models of the 1914 Packard touring cars; one being a beautifully appointed limousine and the other being a seven-passenger touring car model. Much interest is being displayed in these cars owing to their great popularity and distinctive features. These new models, like all other Packards, are maximum service cars. In appearance, convenience and ease of riding, they answer the requirements of the most discriminating patrons. Expert critics pronounce these cars the best that can be produced at the present state of the automobile art.

Many a man who hitches his wagon to a star finds himself up in the air. The size of a coin depends on whether it is coming or going.



### SPECIAL TRAIN RUSHES BABIES FOR BAPTISM

DOUGLAS, Ariz.—A special train is due here tomorrow from Nacoazari, Mex., bearing a score of babies to be baptized. Because of the revolution-ary troubles, there has been no priest in Nacoazari for several months and the babies' parents, most of whom are wealthy, chartered the special train to take their offspring to Douglas for baptism.