

CHANGING OF GEARS WEARS ON MACHINE

Remove Floor Boards and See What Happens when the Driver Throws Out the Clutch in Starting.

THE CAUSE OF GRINDING

Most Common Mistake Is with Accelerator on Shifting.

Changing gears seems to be little understood by a good many automobile drivers, and a few remarks on the subject may be of interest to those who like to do as little grinding as possible. To make things clear, start your motor and remove floor boards. Get on the driver's seat and throw out clutch. You can observe the clutch shaft slow up and come to a stop. Whether it stops slowly or quickly will depend on the state of lubrication of the bearings and also the thickness of the oil in the gear case. The thicker it is, the more quickly the clutch will stop. From the foregoing it is evident that if you attempt to put in the gear immediately after throwing out clutch, there will be a frightful grinding, so frequently heard. Therefore, the proper method in starting is to wait a few seconds before engaging in gear so that the clutch shaft and gears will be at rest or nearly so.

In making shifts upward, a certain interval must elapse after the clutch is out before making the shift, to allow the gear shafts to assume their proper relative speeds. If you have a quick stopping clutch, the interval should be short; a slowly stopping clutch, the interval should be longer.

Making shifts downward is more difficult. A great mistake, so often made, is releasing the accelerator, thus slowing down the motor. In the lower gear the motor must go faster than it did just before the change, so the obvious thing is to keep the throttle open (the habit of releasing the accelerator when the clutch is thrown out is hard to break and a good plan is to open the throttle lever on the wheel a little way). The slower the gear lever is moved, the more momentum the clutch shaft will lose. Therefore, shift as quickly as possible. On some cars this method will work well. On others it will not, and the best practice to follow is what the English call double clutching—that is, the clutch is just touched to release torque on transmission, so that gear can be thrown out and momentarily clutch is engaged again, throttle remaining open all the time. The engine speeds up, and with it the clutch is again touched, the gears are approximately the proper speeds for them to slip in noiselessly. All this is done very quickly. It is, however, difficult to do right and requires practice.

Crankshaft and Play.

End play in the crankshaft is apt to first be noticed when the car is throttled down to around five miles per hour, when so-called bucking will take place, accompanied by knocking. If the play is excessive, the knocking will be heard as the speed increases. This condition may be caused by the main bearing ends becoming flattened or worn too much, so that the shaft can move back and forth and, as it does so, it pounds against the bearing ends still more. In many cars with four-bearing crankshafts the second bearing from the rear is designed to take the thrust, hence replacement of that bearing is sufficient. In three-bearing shafts the center or rear bearing usually is the one which requires replacement. In the four-bearing shafts it is best to simply change the one bearing instead of attempting to remove the play by using two or three bearings with thicker flanges.

Poor engine operation at low car speeds is a common complaint, with the usual cause in the carburetion system. Often an air leak throws out the carburetor adjustment, so that an insufficient amount of fuel is fed. Wide plug gaps with a magneto with weak magnets is a combination which may give this trouble. With a battery system in use, the ignition may be neglected at first and the carburetion attended to, but this done, the ignition should be gone over carefully.

Motor Events

- September 3—Track—Albuquerque, N. M.
- September 3—Speedway, Uniontown, Pa.
- September 3—Speedway—Uniontown, Pa.
- September 3—Speedway—Cincinnati.
- September 6—Track—Red Bank, N. J.
- September 8—Hill climb—Pike's Peak, Colo.
- September 15—Speedway—Providence, R. I.
- September 22-9—Ford accessory show—Chicago.
- September 28—Track—Trenton, N. J.
- September 29—Speedway—New York, N. Y.
- October 6—Speedway—Uniontown, Pa.
- October 6—Track—Danbury, Conn.
- October 13—Speedway—Chicago.

NEW EXECUTIVES NAMED TO DIRECT FORD SHOWS

A change has been made in the executives that are promoting the exposition of Ford accessories, which will be held in the Chicago Coliseum from September 20 to 22. W. Ralph Morris, father of the automobile fitment show, resigning as secretary of the organization. A successor to Mr. Morris has been elected, H. S. Irving, vice-president of the Advance Automobile Accessories Corporation of Chicago, having accepted the position.

In resigning Mr. Morris assured the promoters he had lost none of his interest in the Ford show and that he would work unceasingly for its success. Pressure of other interests made his withdrawal from the office imperative.

Two hundred and thirty of the 300 exhibit spaces in the Coliseum have been contracted for to date, and H. V. Buelow, manager of the show, is confident he will display the "sold out" sign two weeks before the exposition opens.

WESTERN MOTORISTS TO GUARD SIGNS ON ROADS

Calling upon more than 12,000 motorists for assistance, officials of the Automobile Club of Southern California have begun a tremendous drive on sign post vandalism. Although the call has been issued direct to the 12,000 club members, it is also to be extended to every automobile owner who appreciates the value of the signs on the highways. Every motorist is to be asked to co-operate in the movement, not only to stop the sign destruction, but also to increase the efficiency of the club's big system. The club has erected more than 17,000 guide signs.

BRIDGES GIVES REASONS WHY SALES ARE BOOSTED

North Shore Dealer Places Success with Owners' Satisfaction. By C. E. Bridges.

The reason of the big increase in sales of Franklin cars as compared with the sales of other fine cars is found not so much in the difference in first cost as in the operating expense.

Business men get together at the club or on the links and naturally talk about their cars. When the owner of a Pierce-Arrow or a Winton twitches to a Franklin naturally his friends are interested.

When they find that he is getting three or even four times as many miles to the gallon of gas and two or even four times the mileage from his tires, they begin to look into the matter themselves.

35 MILES PER HOUR IS LAW IN WEST VIRGINIA

State Road Commission Issues New Set of Traffic Regulations.

The West Virginia state road commission, under the acts of the regular session, has issued a new set of traffic regulations and automobile registrations. Under the new law no person shall operate a car at a greater rate of speed than thirty-five miles per hour. Cities, villages, or towns, however, have the right to prescribe regulations relative to the speed at which such vehicle shall be operated. No vehicles are allowed to stand on the streets without first tying, locking or taking other reasonable precautions to prevent such vehicle from being started in itself. The age limit has been set at fourteen.

VILLAGE OF WINNETKA

SPECIAL ASSESSMENT NOTICE

In the Superior Court of Cook County, Illinois. General Number 331496.

Notice is hereby given to all persons interested that the Village of Winnetka, Cook County, Illinois, having ordered the improvement of Linden Street from the present pavement at the south line extended from the west of Elm Street, to the south line extended of Willow Street, including all street returns as far back as the street lines of said Linden Street extended. The width of the roadway to be paved in said Linden Street not including the curbing, from a line forty-seven (47) feet south of and parallel with the said south line extended of Elm Street to the said south line extended of Oak Street shall be forty (40) feet; from the said south line extended of Oak Street, the width of the roadway to be paved in said Linden Street, not including the curbing, shall narrow gradually in a distance of thirty (30) feet as measured along the center line of said Linden Street (south of Oak Street) to a width of twenty-seven (27) feet, and the width of said roadway shall thence continue to be twenty-seven (27) feet to the south line extended of said Willow Street. That portion of said roadway to be improved from said line forty-seven (47) feet south of and parallel with said south line extended of Elm Street and said south line of Elm Street extended shall be bounded on the east by the westerly line of the right of way of the Chicago and Northwestern Railway Company, and on the west by a line thirteen (13) feet east of and parallel with the west line of Linden Street. At curb corners, said roadway shall be widened along curved lines having radii of thirty (30) feet. The said Linden Street as above described shall be improved by grading, curbing, constructing new catch basins with connections, constructing new inlets with connections, adjusting present catch basins, adjusting present manhole covers, adjusting present concrete walk approaches, furnishing new catch basin covers, moving fire hydrants and paving with vitrified brick on a Portland cement concrete base with a grout filler and asphaltic felt joints, and covering the brick wearing surface with a one (1) inch layer of earth, all in the Village of Winnetka, County of Cook and State of Illinois, the ordinance for the same being on file in the office of the Village Clerk of said Village, and the said village having applied to the Superior Court of Cook County, Illinois, for an assessment of the cost of said improvement according to the benefits, and an assessment therefor having been made and returned to said Court, General Number 331496, the final hearing thereon will be held on the tenth day of September, A. D. 1917, or as soon thereafter as the business of the said Court will permit. All persons desiring may file objections in said Court before said day, and may appear on the hearing and make their defense. Said ordinance provides for the collection of said assessment in ten (10) annual installments with interest thereon at the rate of five per centum (5%) per annum.

Dated, Winnetka, Illinois, August 24, A. D. 1917.

HARRY I. ORWIG, Person appointed by the President of the Board of Local Improvements of the Village of Winnetka, Cook County, Illinois, (and such appointment approved and confirmed by the Superior Court of Cook County, Illinois) to make said assessment.

FREDERICK DICKINSON, Village Attorney. T23-2tc

VILLAGE OF WINNETKA

Winnetka Special Assessment No. 231.

STATE OF ILLINOIS, } ss.

COUNTY OF COOK, } IN THE COUNTY COURT OF COOK COUNTY.

In the matter of the assessment of the cost of the improvement of Woodland Avenue and Essex Road by the construction therein of a connected system of vitrified tile pipe sanitary sewers, including brick masonry manholes, vitrified tile pipe junctions closed with discs, and connection to the manhole of the North Shore Intercepting Sewer of the Sanitary District of Chicago, in the Village of Winnetka, County of Cook and State of Illinois.

NOTICE is hereby given to all persons interested that the Board of Local Improvements of the said Village of Winnetka has heretofore filed in said Court in said cause, a certificate showing the cost of the work provided for in said cause, the amount reserved for interest, and showing also that the improvement has been constructed in substantial conformity to the requirements of the original ordinance therefor. The hearing to consider and determine whether the facts as stated in said certificate are true, will be held in said Court on the tenth day of September, A. D. 1917, at ten o'clock A. M., or as soon thereafter as the business of the Court will permit. All persons desiring may file objections in said cause by or before said time, and may appear on the hearing and make their defense.

DATED, Winnetka, Illinois, August 24th, 1917.

BOARD OF LOCAL IMPROVEMENTS OF THE VILLAGE OF WINNETKA.

By WM. D. MCKENZIE, President.

FREDERICK DICKINSON, Village Attorney. T23-2tc

VILLAGE OF WINNETKA

Winnetka Special Assessment No. 232.

STATE OF ILLINOIS, } ss.

COUNTY OF COOK, } IN THE COUNTY COURT OF COOK COUNTY.

In the matter of the assessment of the cost of the improvement of Woodland Avenue and Essex Road by the construction therein of a six (6) inch cast iron water pipe, including all fittings, hydrants, valves, valve vaults and connections, in the Village of Winnetka, County of Cook and State of Illinois.

NOTICE is hereby given to all persons interested that the Board of Local Improvements of the said Village

of Winnetka has heretofore filed in said Court in said cause, a certificate showing the cost of the work provided for in said cause, the amount reserved for interest, and showing also that the improvement has been constructed in substantial conformity to the requirements of the original ordinance therefor. The hearing to consider and determine whether the facts as stated in said certificate are true, will be held in said Court on the tenth day of September, A. D. 1917, at ten o'clock A. M., or as soon thereafter as the business of the Court will permit. All persons desiring may file objections in said cause by or before said time, and may appear on the hearing and make their defense.

DATED, Winnetka, Illinois, August 24th, 1917.

BOARD OF LOCAL IMPROVEMENTS OF THE VILLAGE OF WINNETKA.

By WM. D. MCKENZIE, President.

FREDERICK DICKINSON, Village Attorney. T23-2tc

VILLAGE OF WINNETKA

Winnetka Special Assessment No. 230.

STATE OF ILLINOIS, } ss.

COUNTY OF COOK, } IN THE COUNTY COURT OF COOK COUNTY.

In the matter of the assessment of the cost of a connected system of vitrified tile pipe sanitary sewers, including brick masonry manholes, vitrified tile pipe junctions, closed with discs, and combined brick masonry manhole and connection to the manhole of the North Shore Intercepting Sewer of the Sanitary District of Chicago, to be constructed in Willow Street, and other streets, in the Village of Winnetka, County of Cook and State of Illinois.

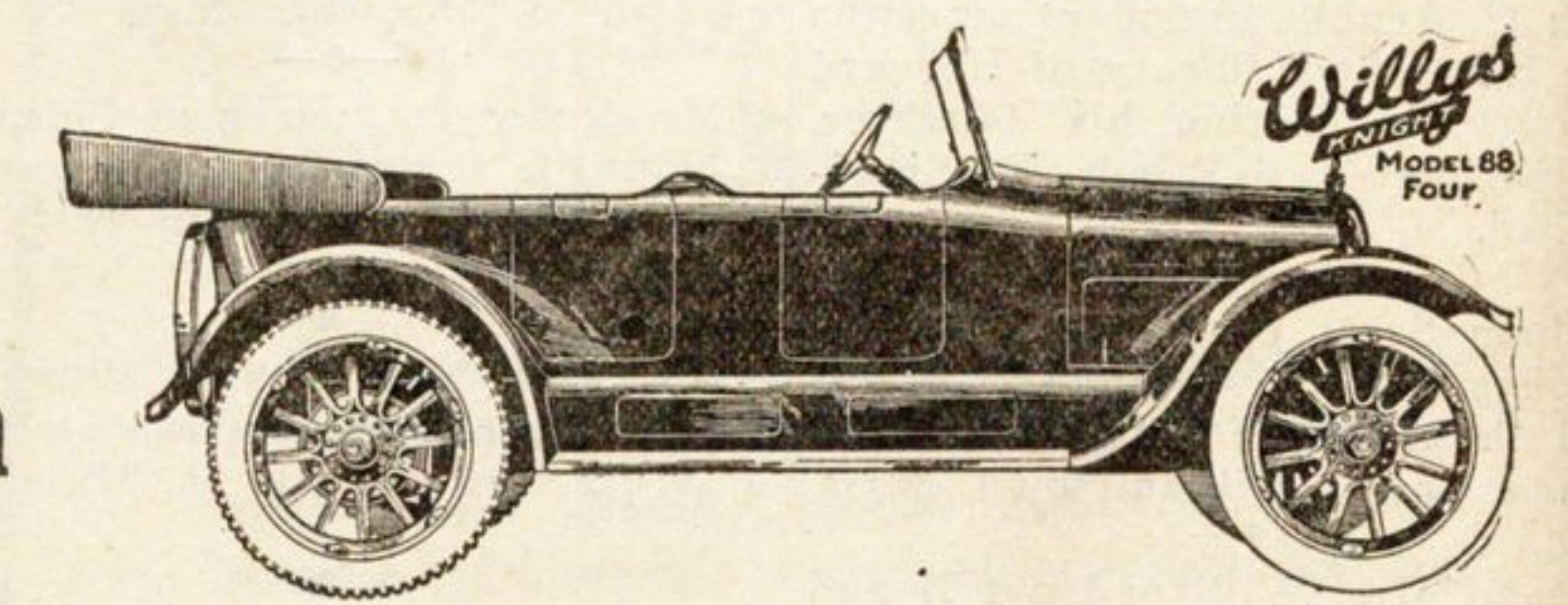
NOTICE is hereby given to all persons interested that the Board of Local Improvements of the said Village of Winnetka has heretofore filed in said Court in said cause, a certificate showing the cost of the work provided for in said cause, the amount reserved for interest, and showing also that the improvement has been constructed in substantial conformity to the requirements of the original ordinance therefor. The hearing to consider and determine whether the facts as stated in said certificate are true, will be held in said Court on the tenth day of September, A. D. 1917, at ten o'clock A. M., or as soon thereafter as the business of the Court will permit. All persons desiring may file objections in said cause by or before said time, and may appear on the hearing and make their defense.

DATED, Winnetka, Illinois, August 24th, 1917.

BOARD OF LOCAL IMPROVEMENTS OF THE VILLAGE OF WINNETKA.

By WM. D. MCKENZIE, President.

FREDERICK DICKINSON, Village Attorney. T23-2tc



Willys Knight
Model 88 Four

Loves Carbon

Hates the Repair Shop

Most repair shop jobs are—motor jobs, And most of the motor jobs have to do with cleaning carbon and grinding valves. Carbon tears down the efficiency of all ordinary types of motors faster than the wear and tear of use. But—carbon builds up the efficiency of the Willys-Knight Motor faster than wear and uses it up. The 12,000 owners who bought Willys-Knights last year do not know what carbon troubles mean—never lose a day's use of their cars.

Think of the joy of owning and driving a motor that is automatically revitalized by the very deadly element that devitalizes every other kind of motor.

Let us demonstrate this wonderful car to you to-day.

WINNETKA MOTOR COMPANY

Distributors of Willys Overland Cars
562 LINCOLN AVENUE PHONE 166 WINNETKA, ILLINOIS