

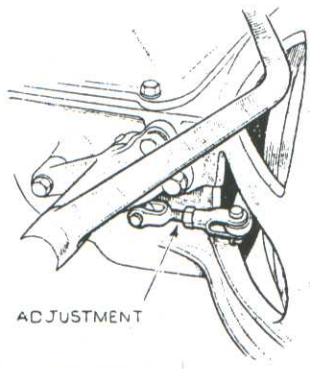


CARE AND MAINTENANCE OF THE ESSEX SIX

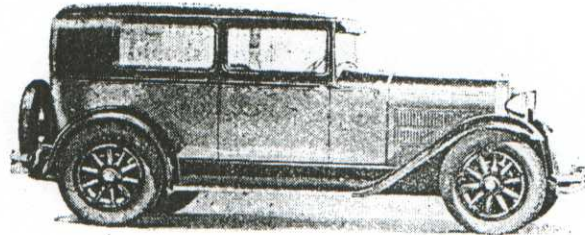
FOR many years the Essex has been a very popular car in this country, not only by reason of its low price, but also because it gives excellent service and does not call for an undue amount of attention.

At the same time, like every other car, it must receive periodical attention if the best results are to be obtained from it, and particularly do the makers emphasise the importance of treating it kindly during its first 1,000 miles. In fact, for the first 250 miles a speed of 25 m.p.h. should not be exceeded on top gear, or 12 m.p.h. on second, and for the next 250 miles the proud owner should restrain his speed to 30 m.p.h. on top gear and 15 m.p.h. on second. It is then recommended that the oil in the crank case should be drained out and a fresh supply given, and for the next 500 miles—that is, until the speedometer registers 1,000 miles—the maximum speed on top gear should not be more than 40 m.p.h., while on second it should not exceed 20 m.p.h.

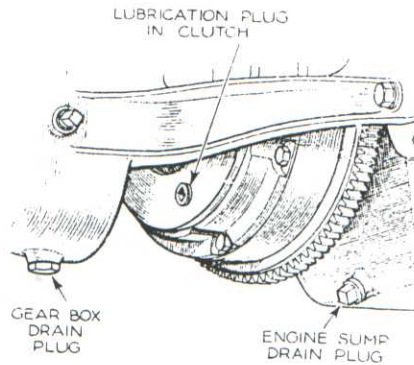
Not only while the car is new, but at all times, is it necessary to see that the various units are well supplied with lubricant, and naturally the engine must receive particular care in this respect. There is no excuse for the owner of an Essex who allows his engine to run short of oil, for, in addition to the dipstick gauge on the near side of the engine, which is plainly marked with maximum and minimum levels, there is a gauge on the instrument panel of the later models which shows the amount of oil in the sump when a small button, located between the starter button and the ignition switch, is pressed while the ignition switch is on. On the extreme left of the instrument panel there is also a gauge which records the oil pressure. It should be found sufficient to add oil to the sump about every 250 miles in order to bring the oil level up to the full mark on the dipstick. The oil recom-



Clutch adjustment link on the Essex Six.



Part I.—How to Obtain the Best Service from a Popular Priced Car Over a Long Period.



Showing position of engine and gear box drain plugs and clutch lubrication plug.

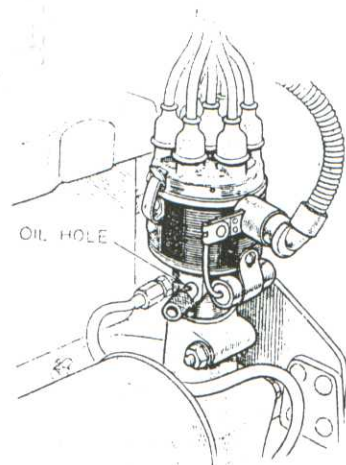
it will flow more freely and will carry with it any sludge which has formed.

After 10,000 miles' running the sump should be removed, and with it the troughs which supply the connecting-rod big-ends. The sump, troughs, and filter should then be thoroughly cleaned with paraffin and allowed to drain. Before the sump is replaced the troughs should be filled with fresh oil, to ensure that all the bearings receive a supply of oil as soon as the engine commences to run; a fresh supply of oil should, of course, be poured into the sump through the filler orifice.

Other points on the engine which require lubrication are the dynamo bearings, which should be given three or four drops of light oil every 1,000 miles through the small

mended is Castrol XL for summer and Castrol CW for winter.

Apart from replenishment of the oil supply, the lubrication system should not need attention. Oil is delivered under pressure by a plunger pump, situated on the off side of the engine towards the front, to the timing case, thence to troughs beneath the connecting-rod big-ends, and the main and camshaft bearings are fed by means of channels situated on the inner walls of the crank case, which are constantly fed by splash from the big-end dipper troughs. As the oil has to pass through an efficient filter before it is taken in by the pump there is little likelihood of the pump needing attention. After the first change of oil at 500 miles it is sufficient to drain the crank case and give a fresh supply every 2,000 miles, and the drain plug will be found situated in the centre of the back edge of the sump pressing. The old oil should, of course, be run off when the engine is warm, as then

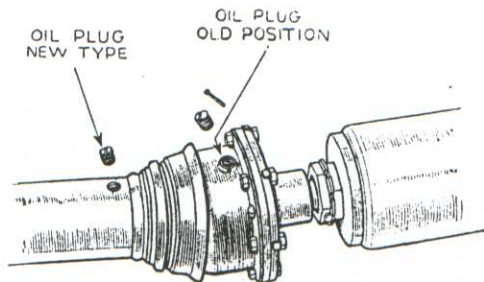


A small oil hole will be found on the base of the distributor.

Care and Maintenance of the Essex Six.

lubricators in each end plate, and the distributor, which every 2,000 miles should be filled with engine oil to the level of the oil cup which will be found close to the condenser beneath the distributor head. The starting motor is fitted with oilless bearings, and does not require lubrication.

The clutch requires regular attention about every 2,500 miles, or more often if it shows a tendency to become harsh in action. To lubricate the clutch, first remove one of the bolts at the side of the flywheel pan,



Universal joint lubrication on the Essex.

also the screw holding the rear end of the pan to the gear box, when the pan can be swung to one side. Then remove the lowest bolt holding the clutch cover to the flywheel, and allow the old lubricant to drain out. Replace the clutch-cover bolt, and pour in through the filler plug on the clutch casing about a quarter of a pint of paraffin; run the engine for about five minutes, working the clutch in and out to allow the paraffin to reach all the parts of the clutch and clean them. Again remove the clutch-cover bolt, drain out the paraffin, and replace the bolt.

Then pour in through the filler plug a quarter of a pint of a mixture of paraffin and Castrol CW oil in equal proportions; it is important not to exceed this amount, otherwise clutch slip may occur. Replace the filler plug securely, and replace the tray under the flywheel.

A clearance of at least $\frac{3}{8}$ in. should be allowed between the clutch pedal and the bottom of the floorboard, and when necessary the amount of clearance may be adjusted by means of the link connecting the pedal-shaft lever with the withdrawal yoke. This adjustment is very simply made by disconnecting the link, loosening the lock-nut which secures it, and turning it so that it shortens. Do not forget finally to tighten the lock-nut.

Gear Box Lubrication.

As regards the gear box, this requires no attention other than lubrication, and oil is poured into it through a filler located directly behind the gear lever. The cover plate over the orifice is held by two screws, one of which should be removed and the other loosened so that the plate may be swung to one side. Before the oil is poured into the gear box the plug on the off side of the box should be removed, as this determines the correct oil level. The oil recommended is Castrol XL, and this should be poured in until it just commences to run out of the level-hole on the side of the gear box.

Every 5,000 miles the oil in the gear box should be drained out through the plug in the base of the casing,

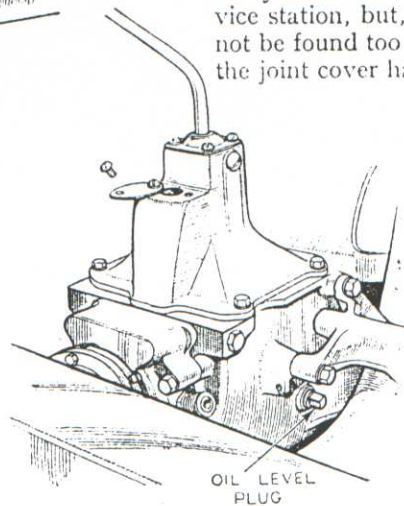
doing this when the car comes in from a run, as the oil will then be warm and will flow more readily. The gear box can be washed out by pouring paraffin through it, and, after the paraffin has drained away, the drain plug should be replaced and the box filled up with fresh oil to the correct level. On no account should grease be used to lubricate the gear box.

The universal joints at each end of the propeller-shaft are lubricated with Castrol ease medium grease, and every 2,000 miles the plugs in the propeller-shaft close to the joints should be removed and lubricant inserted with a grease gun. On earlier models the plug for grease insertion is in the casing of the universal joint itself.

Universal Joints and Rear Axle.

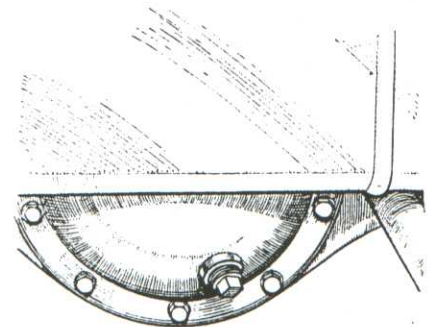
At 10,000 miles it is recommended that the universal joints should be dismantled, thoroughly cleaned with paraffin, and repacked with fresh grease. This is normally a task which the owner-driver will leave to the service station, but, should he wish to undertake it, it will not be found too difficult a matter when the clip securing the joint cover has been loosened and the six flange bolts have been withdrawn. It should be noted that these bolts are secured by locking washers, and when the joint is reassembled these washers should be replaced, new ones being used if necessary.

For lubricating the rear axle Castrol D is recommended, and in the cover plate at the back of the axle casing there will be found a large square-headed plug. When this has been removed, oil should be injected with a gun until it flows from the opening. The level should be examined every 2,000 miles and oil added, if necessary,



Gear box oil filler and oil level plug.

Showing location of lubrication level plug on the Essex rear axle.

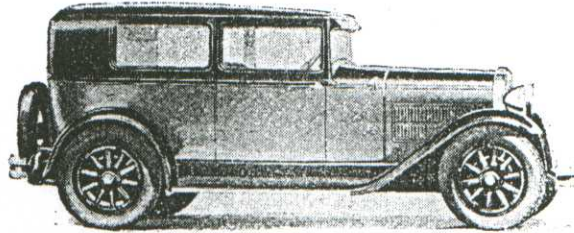


until the level is at the correct height. During the winter months about half a pint of engine oil may be added to the Castrol D in order to thin it out, so that it will flow more readily to the various bearings. Every 10,000 miles the cover plate should be removed, so that the final drive and differential may be washed out with paraffin. After replacing the housing cover do not forget to refill the axle with fresh lubricant. As in the case of the gear box, it is important not to use grease in the rear axle.

The front-wheel bearings are lubricated with Castrol ease medium grease by removing the hub caps, packing them with grease, and replacing them. This should be done about every 1,000 miles, and every 10,000 miles the front wheels should be removed, so that the hubs

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AFTER a time certain adjustments, or attention other than lubrication, may become necessary, and, as regards the engine, decarbonising is probably the most formidable task. It is not, however, a difficult matter if it be undertaken in the proper manner. It is recommended that it should first be done when the engine has covered 500 miles, and after that it



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should only be necessary at infrequent intervals.

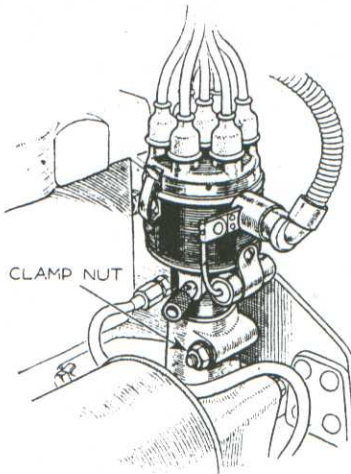
The procedure found to be best by actual experience is as follows. Disconnect the three leads to the coil, which is carried by a bracket at the front of the engine. Disconnect the plug leads, and undo the two spring clips retaining the distributor cap. The complete high-tension wiring can then be lifted out of its clips and placed out of the way. Next loosen the

engine, and should be removed from its bracket by undoing the two small nuts which secure it. The water temperature indicator must also be removed by undoing the nut which secures it to the cylinder head, when it can be withdrawn.

The head is secured to the cylinders by three rows of seven nuts, and when these have been removed there should be no difficulty in lifting the head, although should it stick it may be given a few sharp blows with a mallet on the projections formed at each end for the purpose.

The head and the tops of the pistons should be carefully scraped free of carbon, and when the valve cover plate have been removed the valve cotters may be withdrawn and the valves and springs removed. The valves should only be lightly ground in, in the usual way, and it is recommended that if any valve is found to be badly pitted it should be replaced by a new one, as they are by no means expensive renewals to purchase.

All traces of grinding compound must, of course, be removed and the valves, guides, ports, and seats should all be thoroughly cleaned before the valves are reassembled. The tappet clearances can also be checked before replacing the head. The tappets are of the ordinary type with an adjustment consisting of a stud held in the desired position by a lock nut. Spanners for tappet adjustment are provided in the tool kit, and one of these should be applied to the head of the tappet screw and the other to the lock nut, which latter is then slackened off.

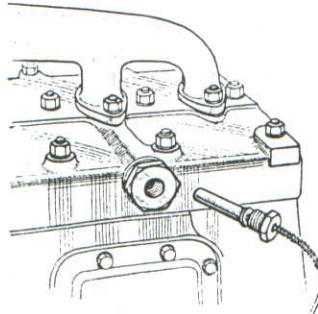


After loosening the clamp nut the distributor can be removed bodily.

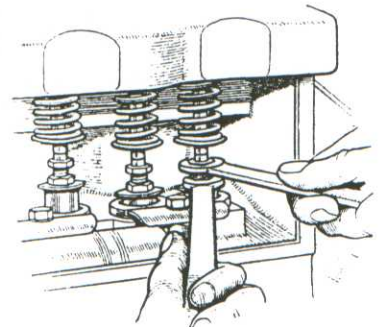
clamp nut which retains the distributor, and remove the distributor bodily by lifting it upwards.

When the distributor is replaced it will be necessary to check the ignition timing, as the distributor can go back into place in two ways, so that either No. 1 cylinder or No. 6 cylinder is firing. If the distributor is replaced in the incorrect position the engine will not run properly, so that it is a simple matter to lift the distributor up again and turn it through half a revolution, when the timing will be correct when it is replaced.

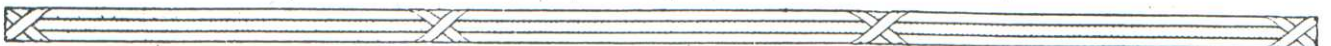
After removing the distributor the next step is to undo the four clamps which secure the exhaust manifold, as otherwise they may be in the way. As the valves should receive attention when decarbonising is undertaken the carburetter should also be removed to give easy access to the tappets. Undo the petrol pipe and the suction pipe from the vacuum-feed tank, also the carburetter controls. Undo the four nuts which hold



Removal of the water temperature indicator is necessary in preparing for decarbonisation.



Adjusting valve tappet clearances. Special spanners are provided.



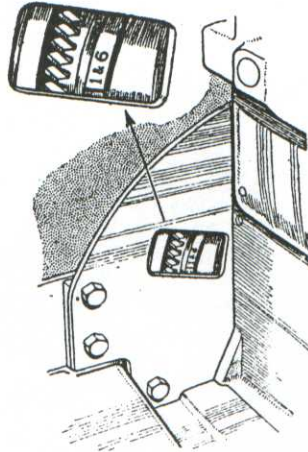
Before making the adjustment it is necessary to make certain that the roller at the lower end of the tappet is at the back of the cam, and this will be so when the piston of that cylinder is at top dead centre on the compression stroke, i.e., when both valves are closed. The correct clearance when the engine is cold is 0.006in. for the inlet valves and 0.008in. for the exhaust valves. The tappet clearances can be checked again when the engine has been reassembled and run until it has reached its normal working temperature, when the clearances should be 0.004in. for the inlet valves and 0.006in. for the exhaust valves.

In replacing the cylinder head it is recommended that a new gasket should be used, and that it should not be coated with any preparation. It is essential to see that the surfaces of the cylinder block, head, and gasket are clean and free from grit, and no difficulty should be experienced in obtaining a tight joint. No definite order is employed for tightening down the cylinder head nuts, but the centre row should be tightened slightly first, beginning at the centre, and then the outer rows, beginning at the centre and working from side to side diagonally. The nuts should be tightened a little at a time so that the head is held down evenly to the block. Finally, the various parts which have been dismantled should be carefully replaced in the reverse order to that in which they were taken off.

It is well to inspect the sparking plug gaps fairly frequently, as the engine is rather susceptible on this point. The gap recommended is 0.018in., and the make of plug fitted as standard and found most satisfactory for the engine is the A.C. 310. When the plug points are checked it is a suitable opportunity to inspect the distributor also, the points of which should be clean and should show a gap of 0.02in. when the fibre block on the contact arm is on the highest point of the cam.

To Check Ignition Timing.

The distributor has an automatic advance device, and as the initial setting is correct there should be no need to alter it. Should the distributor have been removed, however, as for decarbonising, the ignition timing can be checked as follows. Remove the sparking plug from No. 1 cylinder, and turn the engine by hand until the rush of air through the plug hole indicates that the piston is rising on the compression stroke, then turn the engine very slowly until the "dead centre" mark on the fly-wheel coincides exactly with the lower edge of the rectangular hole provided in the right side of the rear engine-bearer plate. Remove the distributor cap and



In timing the engine the dead centre mark should coincide with the lower side of the rectangular hole, with contact breaker points just separating.

rotor, and see that the contact points are just separating. Should it be necessary to make a slight adjustment, loosen the nut on the distributor clamp pin, and turn the distributor bodily to the right, or clockwise, to retard the ignition, or to the left, or anti-clockwise, to advance the ignition. Finally, tighten the clamp pin nut.

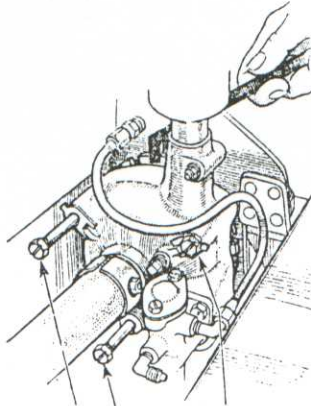
Camshaft Chain Tensioning.

Occasionally the timing chain which drives the camshaft and accessory shaft may need its tension adjusting. It is recommended that this should be done after the first 1,000 miles and then at intervals of 4,000 miles, but it does not follow that adjustment will be found necessary

on each occasion. It is a simple matter to ascertain the condition of this drive, as it is only necessary to grasp the rubber coupling in the dynamo driving shaft and to rock this backwards and forwards. It should have approximately 1/4 in. movement on its circumference.

If more than this movement is detected the chain should be adjusted as follows. Loosen the three bolts which pass through the casing, two of these being fairly accessible, while the lower one is rather masked by the oil pump. At certain stages of adjustment the upper bolt nearest the engine, and the lower bolt, may have to be removed entirely to clear the adjusting plate. This plate will be seen on the front side of the casing, and in its circumference are notches into which a special tool is inserted, so that the plate can be turned towards the operator until only the necessary play is present in the coupling. If two of the three retaining bolts have had to be removed, and they cannot be returned easily, it may be necessary to slack off the adjustment slightly until they will pass through the notches in the plate.

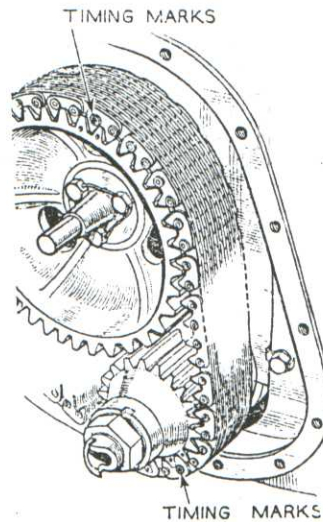
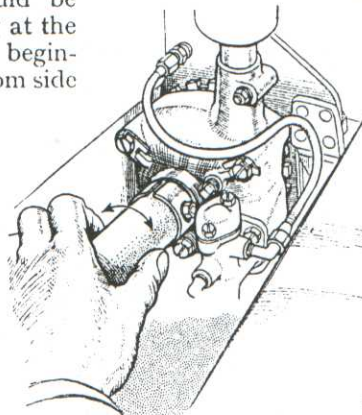
There will also be found in this casing, just above the oil pump, a square-headed plug. Should the casing have been removed for any purpose, then half a pint of engine oil must be poured through the plug hole before running the engine. If it is desired to remove the chain, the adjustment should be turned so that the chain is at its slackest,



RETAINING BOLTS

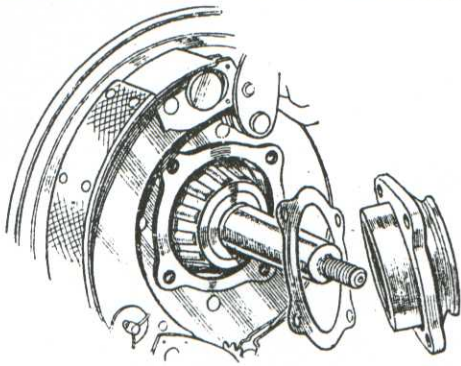
Timing chain adjustment by means of a special tool.

Testing the condition of the timing chain and camshaft drive.

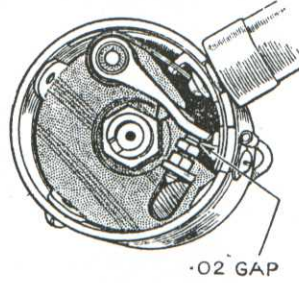


The timing marks on the chain should coincide with those on the crankshaft and camshaft sprockets.

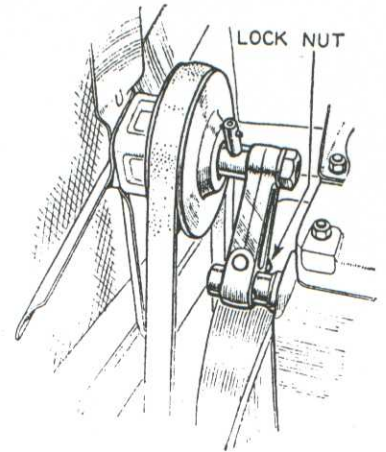
Care and Maintenance of the Essex Six.



(Above) Adjustment for end play in the axle shafts is by removal of shims.



The distributor points should be kept clean and in proper adjustment.



Method of tightening the fan belt.

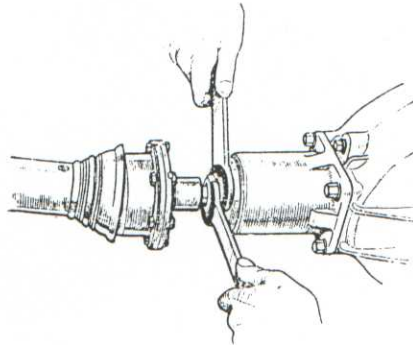
(Right) Taking up play in the pinion shaft.

and then the camshaft sprocket, which is secured by three studs, should be removed. When replacing the chain it is important to notice that the timing marks on the chain coincide with those on both the crankshaft and camshaft sprockets.

A simple adjustment is also provided for tensioning the fan belt, as the fan is carried by an arm pivoted to a stud on the cylinder block. By loosening a locking nut the arm can be swung on its pivot until the belt tension is correct, when the lock nut should be tightened. When the belt is correctly tensioned it should just be possible to rotate the fan by pulling one of the blades with the hand.

As regards adjustments in the transmission, that for play in the clutch pedal has already been mentioned in connection with clutch lubrication, as while that is being carried out it may be conveniently checked. Adjustments are also provided in the rear axle to take up end play in the axle shafts, and in the pinion shaft. End play in the axle shafts can usually be detected by rocking the car to and fro at the rear, or by jacking up the rear wheels and vigorously shaking them with an in-and-out motion. Should more than a slight amount of play be detected the wheel and brake drum should be removed as follows:—

Remove the hub cap in the case of wood wheels, and the wheel and inner hub cap where wire wheels are fitted.



Next remove the split pin and axle end nut, and apply the wheel drawer, making sure that the brakes are in the off position. A few sharp blows with a hammer on the end of the wheel-puller screw should be sufficient to free the hub on the axle shaft key, after which the hub and drum assembly can be removed. The bearing cap is then disclosed and this is secured by four studs. Undo the studs and remove the cap, and it will then be seen that thin shims are located behind the cap. One or more of these should be removed until there is no perceptible play. Care must be taken, however, not to remove too many shims, as this will cause undue pressure on the bearings, with consequent wear. The shafts should be so adjusted that they can be easily turned by hand.

End play in the pinion shaft is easily taken up by means of an adjusting nut at the front of the pinion casing. This is secured by a lock nut, and between the two nuts there is a locking washer. Prise up the turned-over portion of the washer, loosen the lock nut, and then turn the adjusting nut in a clockwise direction to take up play. There should be no perceptible end play, but the shaft should revolve freely. Finally, tighten the lock nut and bend over the locking washer to secure it.

(To be continued.)

THE ART OF TRAFFIC DODGING

On the Best Method of Crossing a Crowded City.

IN these crowded days the crossing of a great city in a car is a fairly complicated operation, and it may be a very exasperating one if the route from point to point has not been carefully chosen, and if, as a result, there has been much time lost in traffic blocks.

The first point to remember is to avoid the main through roads, where one usually has to face competition with buses or trams. It is surprising how often there is a more or less parallel stretch, frequently with an excellent surface, comparatively deserted save for local traffic.

Next try to dodge the cross roads which are guarded by police on point duty. Without in the least wishing to decry the value of their services, there is no getting away from the fact that they very often do hold up

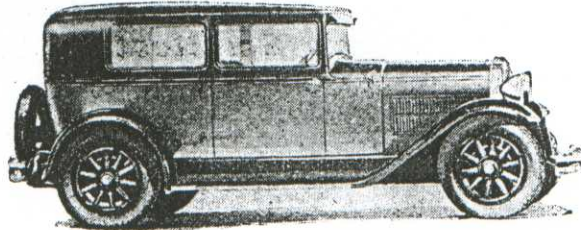
vehicles when it is not really necessary. One can nearly always slip across a line of traffic unassisted, without either fuss or danger, unless the stream is practically continuous.

If through ignorance of one's whereabouts, or for some other cause, one does get held up at a crossing, it is often possible to proceed without delay by seeking permission—a slight toot on the horn will suffice—to carry on by turning to the left. All that is then required is to take the next turning to the right!

It may seem a little far-fetched to advocate "steering by the sun" (should it happen to be visible) in a great city, but before now I have made the complicated journey from north-east to north-west London without loss of time simply by driving into the setting sun!
—V. T. B.

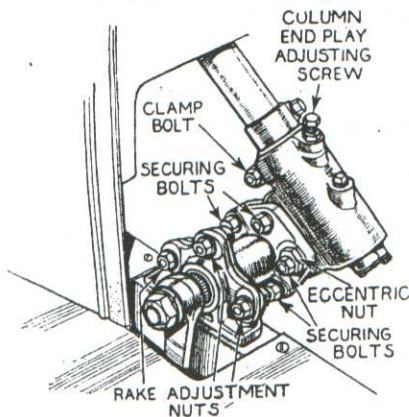
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SEVERAL other adjustments are provided throughout the chassis, and the steering gear has no fewer than four. Should end play develop in the steering column it can be taken up by loosening the clamp bolt at the base of the column, loosening the lock nut which secures the adjusting screw just above the plug which is provided for lubrication, and then turning



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The fourth adjustment is one, of considerable value, for the rake of the steering column to suit the convenience of the driver. Loosen the three nuts on the studs in the frame bracket, and also the nut which secures the clamp supporting the column to the scuttle. The steering column can then be set as desired, making sure that the bracket supporting the column is in proper en-



Four adjustments for wear are provided on the Essex steering box.

also the clamp bolt which are at the base of the column.

Taking Up Steering Play.

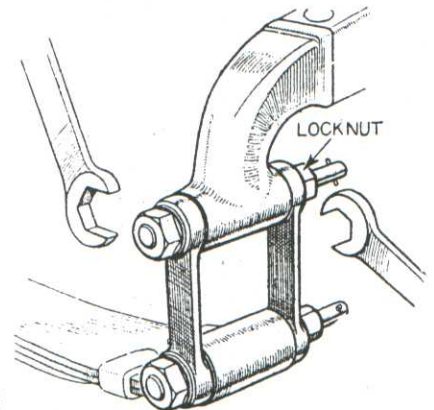
Play between the worm and the cross-shaft roller can also be taken up. Before making the adjustment place the wheels in the straight-ahead position and disconnect the drag link from the drop arm, shaking the arm to determine the amount of play. Loosen the four nuts which secure the steering box to the flange on the supporting bracket, and note that these nuts should only be loosened for one quarter of a turn. Behind the foremost of these nuts there is an eccentric sleeve which should be turned in a clockwise direction in gradual stages to remove play. After each slight turn, shake the drop arm and note the effect obtained, and complete the adjustment with great care so that the eccentric sleeve is turned just sufficiently to remove play and no farther. Then tighten the four securing nuts.

An adjustment for play in the steering cross-shaft consists of an adjusting screw and a lock nut. Loosen the lock nut, and screw the adjustment down as tightly as possible and then slack off slightly. Finally, tighten the lock nut.

the adjusting screw down as far as possible. Care must, however, be taken that the action of the steering wheel through its entire movement from lock to lock is not stiffened. This adjustment should be made carefully and a little at a time, as the adjusting screw should be turned downwards only. Do not forget to tighten the lock nut and

the nut of its clamp is tightened. Then tighten the three frame bracket nuts.

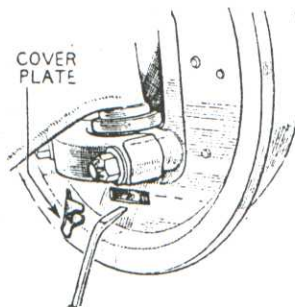
The spring shackles are provided with an adjustment, so that all side play can rapidly be taken up and any rattles at these points eliminated. The first step is to loosen the lock nut on the grease gun nipple end, or, in the case of older cars, at the oil cup end. Then tighten the nut at the other end until side play is just eliminated. When the adjustment is obtained tighten the lock nut. At the same time examine the nuts on the U bolts which secure the springs to the axles, as spring breakages can usually be attributed to these nuts becoming loose.



Side play adjustment of spring shackles.

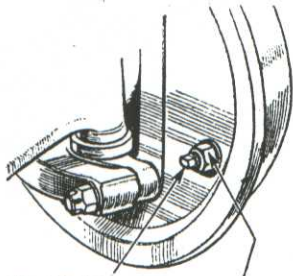
Brake Adjustment.

On the latest model the four wheel brakes are of an improved two-shoe pattern, and adjustment for wear can be made in a few seconds with no other tools than a bent screwdriver. First of all, jack up all four wheels and then, dealing with one wheel at a time, remove the plate covering the adjusting screw, which will be found at the lowest point of the brake anchor plate.



A bent screwdriver can be employed for adjusting the latest model four wheel brakes.

After doing this, insert the screwdriver through the slot into the adjusting screw, which resembles a form of gear wheel, and turn the adjusting screw away from the axle until a substantial resistance is set up to the turning of the road wheel. Then turn the adjusting screw back towards the axle, so decreasing the brake pressure until the wheel just turns freely.



ADJUSTING SCREW LOCK NUT
Front wheel brake adjustment on the Essex Six.

Repeat this process for the other three wheels until all are equally adjusted. It will be found helpful for a second person to sit in the car and apply the brake to a certain extent, when the resistance offered at each wheel in turn can be tested for a given amount of pressure on the pedal. Do not forget to replace the small cover plates over the adjusting screws.

On earlier models three-shoe type brakes are fitted, and adjustments are provided for both wear and equalisation. A third adjustment is provided for extreme wear, but this affects the position of the operating levers and it is recommended that it should only be carried out by a service station.

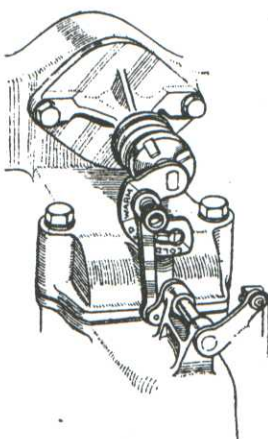
To adjust for wear, jack up all four wheels and adjust the front brakes first. Loosen the lock nut on the cam adjusting button, and with a screwdriver turn the button screw in a clockwise direction until the brake starts to drag, then slacken off the screw until the wheel just turns freely. Tighten the lock nut, and again make sure that the wheel can be turned without the brake dragging. Repeat this process for the other front wheel.

Equalising Brake Pressures.

To adjust the rear brakes, turn the ball socket nuts on the ends of the brake pull rods to the right, i.e., clockwise, until the brakes start to drag. Slacken off the adjustment until the wheels just turn freely. Make sure that the cross pins in the ball socket nuts rest in the grooves in the brake shaft levers when making this adjustment.

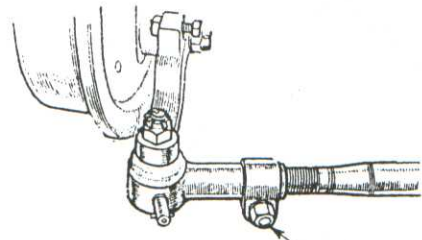
Having adjusted the brakes, check them for equalisation. Persuade a second person to sit in the driver's seat and apply the brake lightly, or press the pedal down slightly by means of a piece of wood wedged between the pedal and the edge of the front seat. Turn the wheels in a forward direction against the drag of the brakes, and compare the effort required for each wheel. If one wheel offers greater resistance than another, slack off the adjustment at the end of its brake-operating rod until the desired result is obtained.

From time to time the alignment of the front wheels should be checked, as this not only affects the ease of steering, but also the life of the tyres. Measure the distance between the inside of the rims at the front and at the rear of the wheels. The distance at the front should be the same as at the rear, or up to 1/4 in. less. Should adjustment be necessary, loosen the clamp bolts in the yokes at both ends of the tie-rod until the desired result is obtained. Finally, tighten the clamp bolts securely.



A valve controls the flow of hot gases round the carburetter.

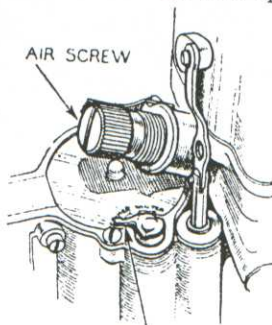
The recommended tyre pressure, incidentally, is 35lb. per square inch for both front and rear, and tyres should be tested each week with a reliable pressure gauge and inflated if necessary.



YOKE CLAMP BOLT

The front wheels should not "toe in" more than 1/4 in. The method of adjustment is here shown.

On the present series of cars a Marvel carburetter is fitted, and it should not require attention unless the initial setting has been disturbed. Just above the float chamber is a small pointer which should be set to the point indicated as the summer setting, this being stamped on the float chamber. Then turn the air screw, which projects just above the float chamber, until its end is flush with the end of the flat lock spring. Start the engine and run it until it has reached its normal working temperature. Set the throttle at idling speed, and turn the air screw until smooth and even idling is obtained. For winter running the pointer should be set to the mark also indicated on the float chamber.



AIR SCREW

POINTER

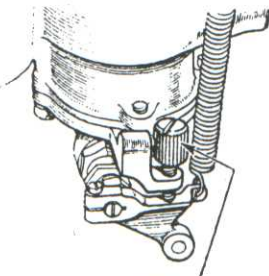
The small pointer above the float chamber on the Marvel carburetter.

In the exhaust manifold is a valve which controls the flow of exhaust gas through a jacket round the upper part of the carburetter. This valve is adjusted by means of a link engaging with a curved slot in a bell crank lever on the valve spindle, and the valve should be set with the link at the upper end of the slot.

On Earlier Models.

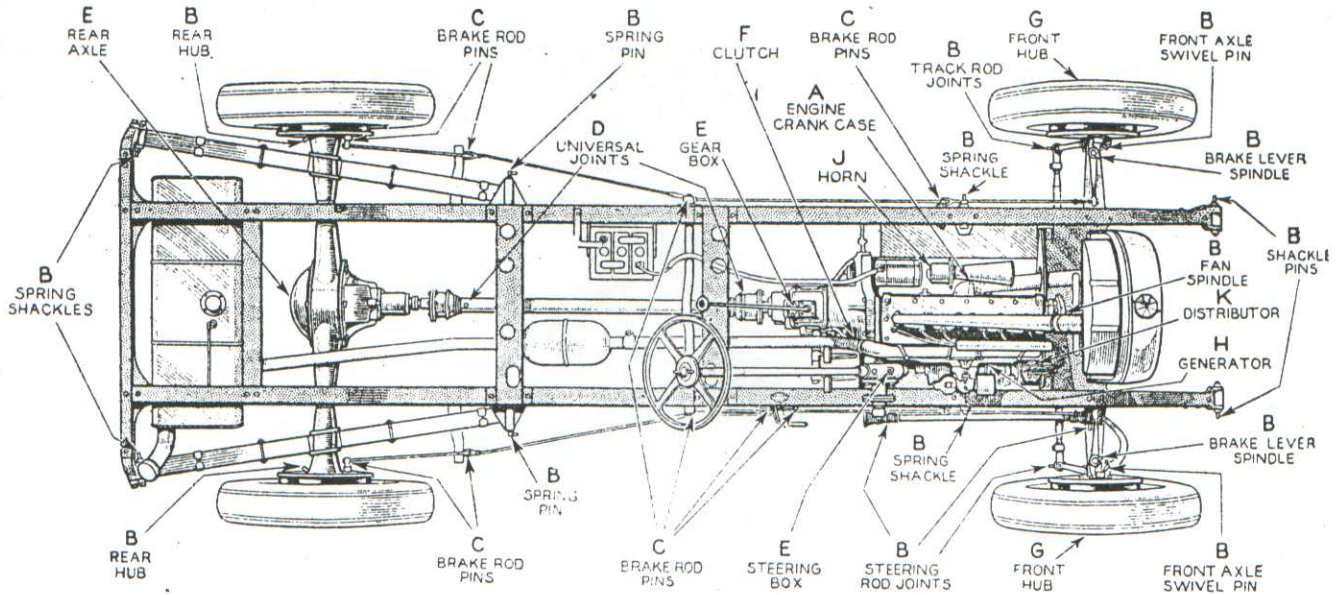
On earlier cars a Stewart carburetter is fitted and this also is very simply adjusted. Run the engine until it has attained its normal working temperature, and close the throttle to idling speed. Turn the knurled adjusting screw, which on the model in question will be found at the bottom of the carburetter, to the left, i.e., anti-clockwise, until the engine just begins to run unevenly. Then turn the adjustment clockwise very carefully, being particularly sure not to move it more than a notch at a time, until the engine fires evenly. This single adjustment automatically ensures correct carburation throughout the entire range of engine speed. In hot weather it may be found an advantage to open the sliding covers on the hot air muff.

Regarding the electrical equipment, the head lamps are provided with a simple focusing arrangement consisting of a single screw in the back of the lamp casing, and it is well to take the car on to a straight road at night and use this adjustment until the best driving light is obtained. The wiring of the lighting circuits is protected by a 20 ampere fuse located at the back of the switch on the dash. Should the



ADJUSTING SCREW

On earlier models a Stewart carburetter is fitted, of which the adjustment is here illustrated.



ESSEX OILING CHART—A. Every 250 miles replenish to "full" mark with engine oil. Every 500 miles, drain and refill sump. B. Grease every 1,000 miles. C. Oil every 1,000 miles. D. Grease every 2,000 miles. E. Every 2,000 miles inspect and replenish with gear oil. F. Oil every 2,500 miles. G. Fill with grease every 1,000 miles. H. Insert three drops of engine oil in each cup every 1,000 miles. J. Oil, three drops, every 2,000 miles. K. Fill base with engine oil to level of oil cup every 2,000 miles.

lamp not operate, examine the fuse and, if necessary, replace it. Should the fuse blow persistently it is probable that there is a short-circuit in the wiring, and a service station should be called in at the earliest opportunity. Frequent attention should be given to the battery to maintain the level of the electrolyte $\frac{1}{2}$ in. above the top of the plates by the addition of distilled water.

Finally, do not attempt any adjustment unless it is clearly understood how it should be carried out. If the foregoing instructions are read and studied and the actual components involved are carefully examined at the same time, it will be found easier to understand how the adjustments indicated should be carried out to the best effect.

"LES PARKINGS."

Easy to Make Rules, Difficult to Enforce Them.

PARIS is proving that it is easy to pass a decree against leaving cars standing in the street, but very difficult to enforce it. There is a joyous freedom for the motorist in the French capital. He drives up to his office or place of business in the morning, leaves his car unattended until mid-day; he lets it stand outside his restaurant for an hour and a half while he partakes of lunch; it remains in the street all the afternoon; it is to be found in front of his favourite café in the evening; and between 8 o'clock and midnight it waits for him close to some theatre or music hall.

When he goes home he may feel disinclined to walk back from the public garage, and the car is left for the night without lights in the vicinity of a gas lamp. Personally, I maintained a car in Paris last winter for three consecutive weeks without putting it into a garage. The police never interfere; the regulation that standing cars should have a light in front and another at the rear is rarely enforced in the main streets and avenues, even the police admitting that "ce n'est pas la peine."

Protests arose when the decree was issued that no cars should be left unattended in a central portion of the city for more than half an hour. Business firms were not at all pleased that motorists should be deprived of the privilege of driving to their establishments in their cars and of leaving them outside while business was being transacted. Motorists immediately demanded that

if they were not to be allowed to leave their cars indefinitely they should have parking places.

"Les parkings," to employ the horrible expression which has been incorporated in the French language, are difficult to find. The authorities optimistically promised to provide them, above ground or under ground, and to exact a payment for their use. As the charges were rather high, this did not meet with the approval of the motoring public. Even the firms and associations offering to organise paid parking places did not feel assured of their financial success, for they demanded a guarantee from the municipal council.

Meantime, the decree which went into effect on January 1st has not been applied. The underground garages exist on paper only, and probably will never get any further. Only M. Chiappe, the energetic chief of police, is determined that the scheme shall be carried through, and even he is willing to modify it.

It is now suggested that the rule against leaving cars unattended shall be applied only from 9 a.m. to noon, and from 2 to 7 p.m., thus making it possible for one set of guardians to be employed for the parking places and leaving the Parisian free to eat his lunch, drink his *apéro* in the evening, and attend places of amusement at night without the harassing thought that a policeman is writing down the numbers of his car and preparing an invitation to call at the police station.. W. F. B.