- If, with the fuses intact, and the lights in order, the ignition:--
- (a) Misses.
  - 1. First confirm right condition of sparking plugs.
  - 2. Assure correct condition of contact breaker points, and adjust gap .019" to .021", if necessary.
  - 3. Check condition of ignition coil casing. (See page 97.)
- (b) Fails.
  - 1. With ignition switched on, see by ammeter, while engine is cranked, that coil is taking current intermittently. If no current, test availability of battery voltage at coil terminals.

If, with battery in order, starter motor is sluggish or does not turn, examine commutator and brushes. Clean oily brushes and holders with a rag moistened with petrol. If motor turns without turning engine, check freedom of engine with starting handle. If found in order, the trouble lies in starter drive, and Messrs. Bentley Motors (1931) Ltd., or one of their "Special Retailers" should be consulted.

If battery will not retain charge:—

- I. Ascertain that no circuit is left switched on.
- 2. See that no cell of the battery leaks acid.

## CHAPTER XI

# Accessories

Windscreen Washing Equipment.

## Windscreen Washing Equipment.

As an added improvement to driving comfort and safety, a vacuum-operated device enables the driver to wash the windscreen whilst driving the car.

The equipment consists of two jets mounted on the scuttle just forward of the windscreen wiper blades. A press button is situated within easy reach on the facia, and on depressing this button the induction depression is communicated to the diaphragm of a pump on the reservoir, which is a glass container underneath the bonnet.

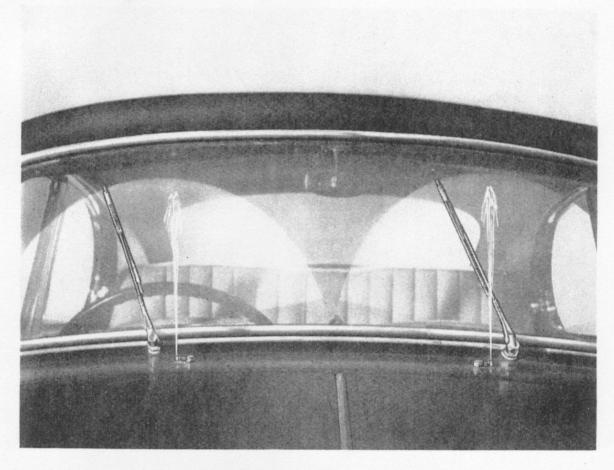


Fig. 48.—OPERATING WINDSCREEN WASHERS.

When the button is released, the diaphragm is returned under spring pressure and causes two jets of fluid to be directed on to the windscreen. The screen wipers should then be switched on, when the screen will immediately be cleaned.

The liquid in the reservoir has low surface tension and antifreeze properties.

As the pump is actuated by the induction pipe depression, it is necessary to ease the foot off the accelerator pedal whilst the button is being depressed, otherwise there may be insufficient depression to actuate the pump.

The jets may readily be cleared if they ever become obstructed with foreign matter, by slackening off the knurled screw and operating the pump in the normal way. The jet consists of small slot which becomes exposed when the screw is slackened off, and any obstruction is therefore easily washed away.

Adjustment of the angle of the jet is effected by turning the hexagon portion of the jet with a suitable spanner. The jet should impinge on the windscreen towards the top of the arc traversed by the screen wiper blades.



Fig. 49.—RESERVOIR AND PUMP.

- 1. Reservoir.
- Filler cap.
  Diaphragm pump.

Do not attempt to dismantle the part of the jet attached to the scuttle, as reassembly may be difficult.

Tins of special liquid, which is mixed with water for refilling the reservoir, are obtainable from the Main Service Station, Hythe Road, Willesden, N.W.10, and should be used in the proportions as directed.

## CHAPTER XII

# Storage and Recommissioning of Cars

The storage place should be dry, well ventilated and preferably heated.

The general instructions are intended to cover short periods of storage; if the storage period is likely to exceed three months, the engine, gearbox and rear axle should be drained and refilled to the correct levels with a pure mineral oil, e.g., Vacuum "BB" or Wakefield's Aero "C". Also, one of these oils should be used for injecting into the cylinders.

I.—Jack up rear wheels to take all weight off tyres, and place suitable wooden supports under the axle.

Run engine gently for a few minutes with a gear engaged. When cold, inject about two tablespoonfuls of engine oil through the spark plug holes in each cylinder. Turn the crankshaft with the starting handle a few times to distribute the oil over the cylinder walls.

Jack up front of car, a jacking pad is provided on the centre of the front suspension; support on suitable wooden blocks.

Do not deflate tyres, but cover up to exclude light.

- 2.—If the cooling system contains anti-freeze, do not drain. If the original coolant has been replaced by plain water, and there is any danger of freezing, drain the system. Otherwise leave water in.
  - 3.—Drain all fuel from the main tank, rear filter and carburetter.

The fact that motor spirits undergo deterioration with time and thus cause them to adversely affect the inlet valves and the moving parts of the carburetter, it is undesirable to keep fuel tanks half filled in a warm atmosphere.

- 4.—Remove battery and properly charge from an external source; give a subsequent freshening charge every four to five weeks.
- 5.—Wash down and polish coachwork and clean all bright parts. Lightly smear with vaseline any bright parts not having an untarnishable finish.
  - 6.—Cover the car with a light dust sheet.

Before putting the car into service again after storage, the following operations should be performed:—

- I.—Drain engine crankcase and refill to correct level with fresh engine oil.
  - 2.—Prime cylinders with engine oil.
  - 3.—If previously drained, refill cooling system to the correct level.
- 4.—If gearbox and rear axle have been filled with a pure mineral oil, as directed for long period storage, drain and refill with the correct oils.
  - 5.—Run engine gently for a time after starting up.
  - 6.—Remove and clean spark plugs.

## CHAPTER XIII

# School of Instruction

To enable the maximum satisfaction to be obtained from the ownership of a Bentley car, Instructional Courses of two weeks' duration are held on the maintenance of the Bentley chassis. During the Course, the mechanical features of the chassis are fully explained. particular emphasis being stressed on the points requiring lubrication or adjustment; at the same time instruction is given in the handling of the car on the road, where a high standard of driving is demanded. Suitable cars are maintained by the School for instructional purposes.

The Course is intended for chauffeurs who are undertaking the care of Bentley products for the first time, and also for drivers who have had previous Bentley experience on other models. In this latter case shorter periods can be arranged, although in most cases the full Course is desirable.

In the past, owner-drivers and/or members of their families have frequently attended the Courses with beneficial results, and suitable arrangements may be made by application.

The School is located in part of the Service Department building at Willesden. Further particulars may be obtained from the Principal, School of Instruction, Bentley Motors (1931) Ltd., Hythe Road, Willesden Junction, London N.W.10. (Telephone No.: LADbroke 2444.)

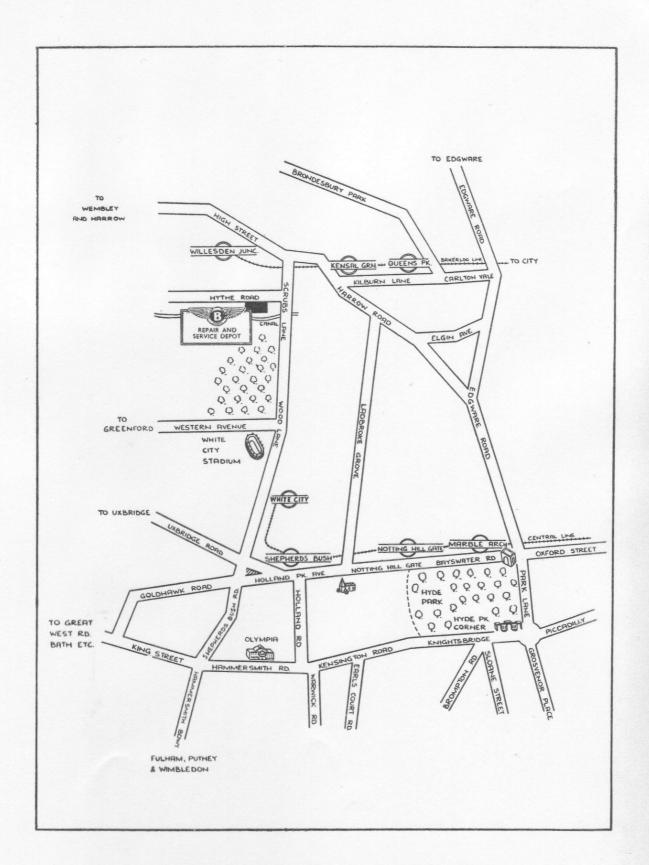


Fig. 50.—GUIDE TO LOCATION OF MAIN SERVICE STATION.

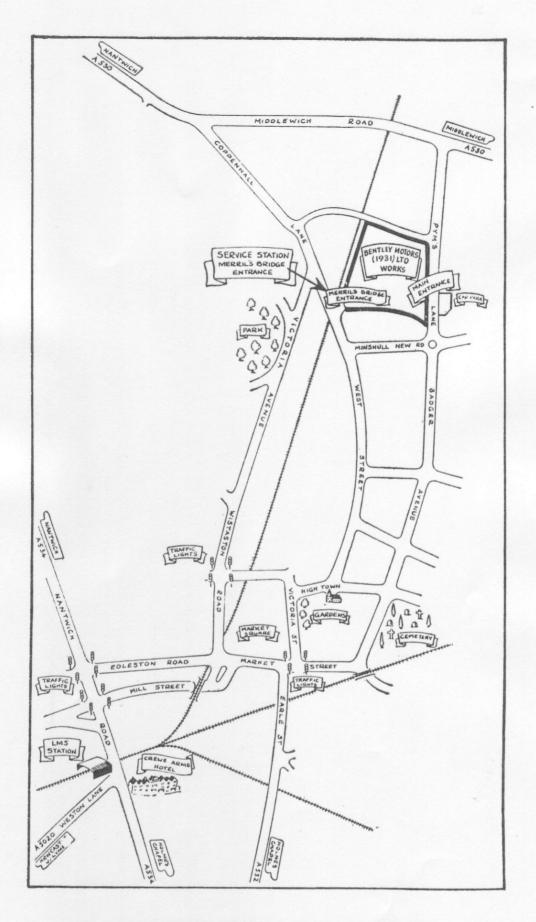


Fig. 51.—GUIDE TO LOCATION OF CREWE SERVICE STATION.