NOTE.-- The foregoing simple instructions, if intelligently followed, are all that are necessary for running the ROLLS-ROYCE cars ; the following Appendices are given for the benefit of anyone wishing to make a closer study of the mechanism, and describe fully the more complex operations.

APPENDIX I

EVERY 500 MILES OR WEEKLY

The Numbers of the Operations correspond with those in Chapter I.

1. Replenishing Crank Chamber.

The correct level of oil in the well is important and is indicated by a special overflow cock D (Fig. 35, p. 36) fixed on the lower half of the crank-chamber, in rear of the oil-well ; this cock is operated by a small lever which will be found fixed to the chassis frame below a cylindrical tank on the left-hand side of the car ; it is closed when the lever hangs vertically. This overflow cock indicates the normal height of the oil when the car is *level* ; the oil when the engine is still should not be above this level, and it should not be allowed to get *much below* this level or the pump would fail to properly keep up the circulation.

It is wise to open the overflow cock d*aily* to see if oil runs out (do not be deceived by a small amount of oil which

may be in the cock itself) ; if none flows out (and you are satisfied that the cock-hole is not clogged by dirt), the level is getting low and more oil is required in the engine-well.

Before turning on the oil supply to the engine, this overflow cock should be opened by lifting the small lever upward ; to let oil into the engine-well the tap at the bottom of the oil tank ashould then be turned on and the oil forced into the crank chamber by connecting the tyre pump to the filling plug and raising the pressure in the tank with three or four strokes of the pump. As soon as the oil begins to run out at the overflow cock (the car should be level or this will not be a true indication) both the overflow cock and the oil supply should be turned off. The latter is off when at right angles to the pipe. (For further information see pp. 36 and 65.)

4. Bevel Gear Box

The back axle gear-box should contain about 4½ pints of heavy gear oil. The oil shoul;d be filled from th back filling plug until it runs out at this plug. When opening the filling hole, do not be decieved by a little congealed oil, or by froth, both of which may give the appearance of
the box being full. Fill same quantities and at same times as the change gear-box, i.e., ½ to ¼ a pint injected with a syringe every 500 miles or once a week.

Before filling the bevel gear-box it is convenient, especially in cold weather, to warm the oil to make it flow easily. It is also best to fill the box when it is warm, *i.e.*, when the car has just come in.

If too high a level of oil is allowed in either of the gear-boxes, waste and trouble will follow, as the violent agita-tion causes froth to form, and the bulk of the oil is so increased as to ooze out of the bearings and to get on to the brakes and tyres.

N.B.- Do not on any account use grease in the gear-boxes, as this would clog the oil passages.

See that the drain pipes projecting from the rear brake brackets are not clogged with mud, or the brakes will become oiled and ineffective.

5. Clutch Coupling.

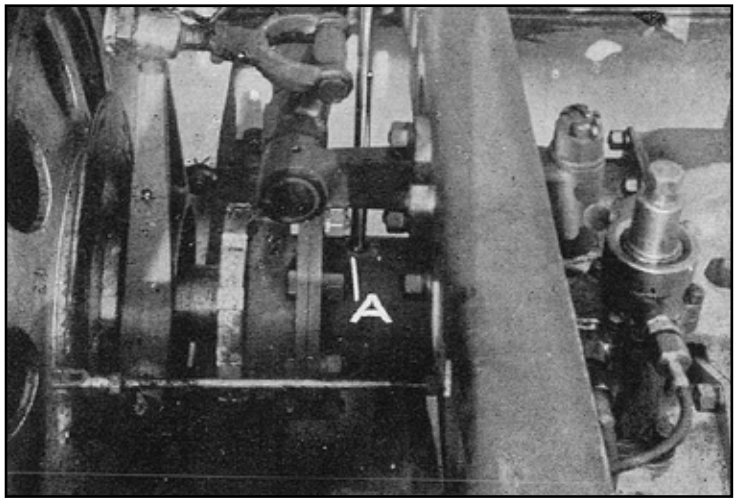

Fig.2
OIL CLUTCH COUPLING AT A

The oil hole is in the centre of the coupling body. Should oil at ant time be found to leak out round the aluminium end covers, these should be tightened.

6. Torque Rod (front end).

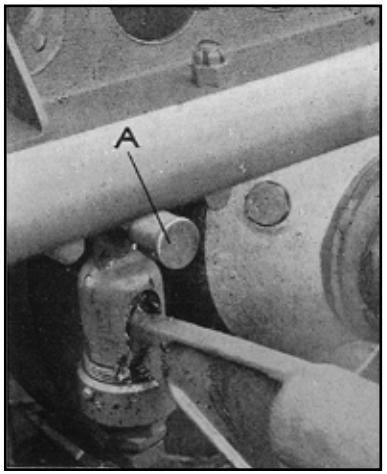

Fig. 3
A SHOWS CUP ON FRONT END OF TORQUE ROD.

7. Torque Rod (rear end).

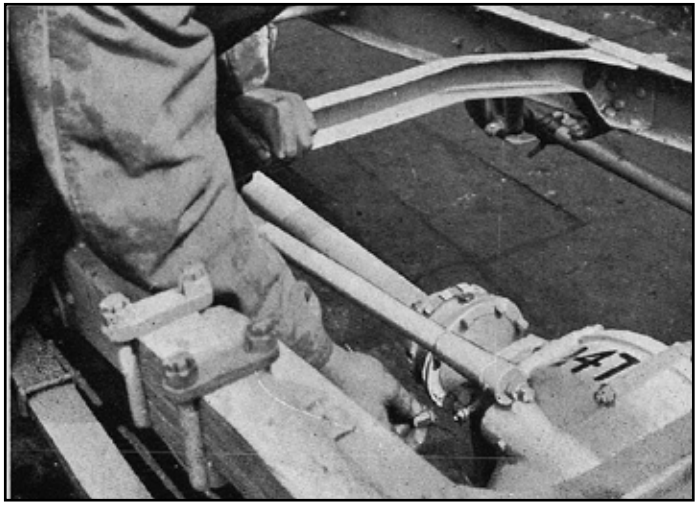

Fig.4.
UPPER OIL CUP AT REAR END OF TORQUE ROD.
THERE IS A SIMILAR CUP AT BOTTOM

8. Radius Rods (near side).

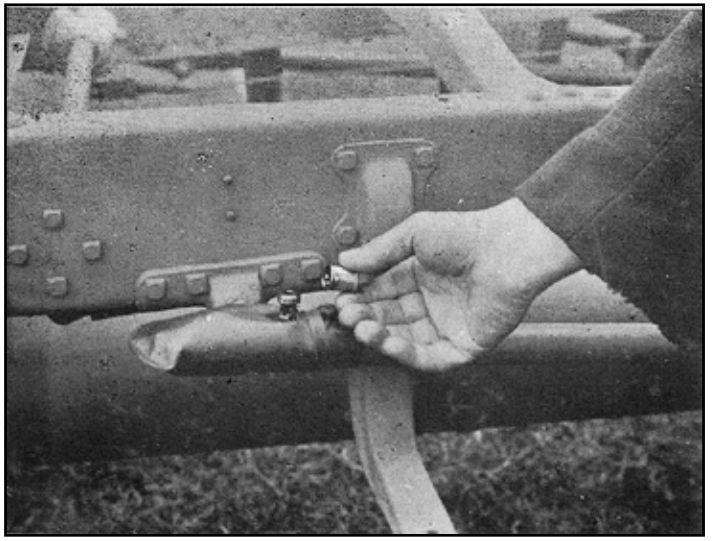

Fig. 5.
CUP AT FRONT END OF NEAR SIDE RADIUS ROD.

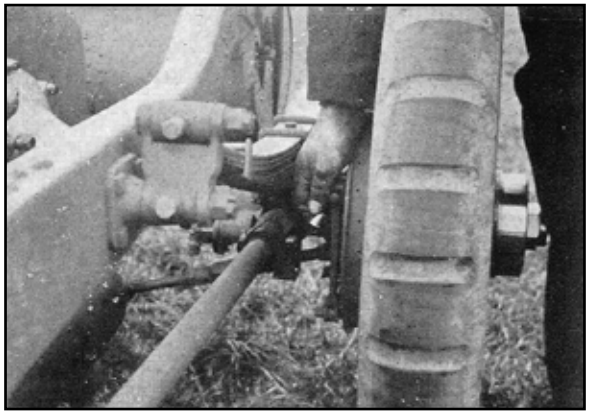

Fig.6

CUP AT REAR END OF RADIUS ROD

In later types, both oil cups are situated at front end of radius rods

9. Radius Rods (off side).

Similar cups on radius rod on either side of car.

10. Back Axle and Spring Bracket Bearing.

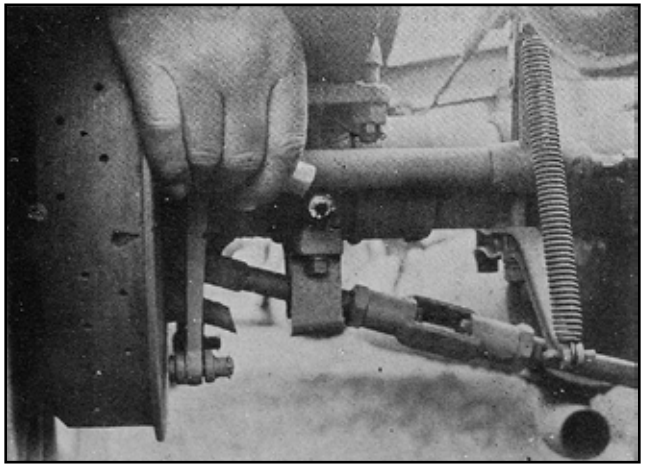

Fig.7.

Showing Grease cup on near side Spring bracket on rear axle (one also on off side).

11. SpringShackles.

The fourteen small cups are shown in the following figs. 8 to 11 (inclusive) ; after filling with a good *graphite* grease, they should be screwed right up to prevent them from unscrewing through vibration.

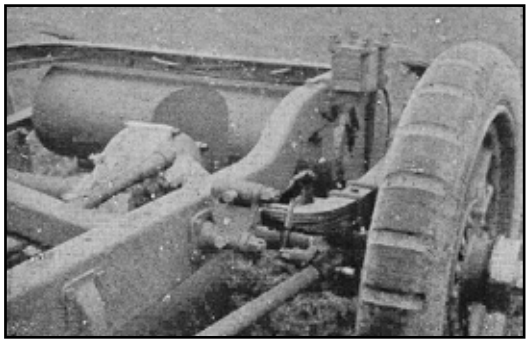

Fig.8

TWO CUPS ON FRONT OF "NEAR" REAR SPRINGS (SAME ON OTHER SIDE)

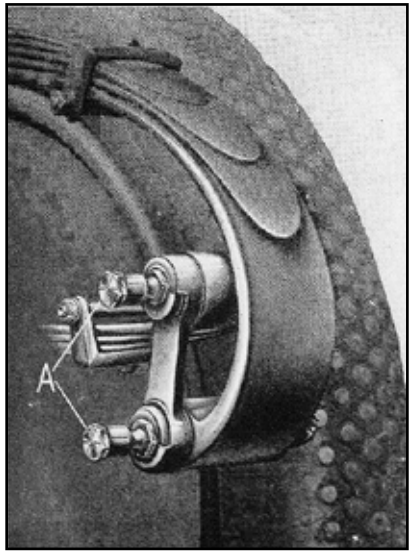

Fig..9

TWO CUPS ON BACK OF "OFF" REAR SPRING (SAME ON OTHER SIDE)

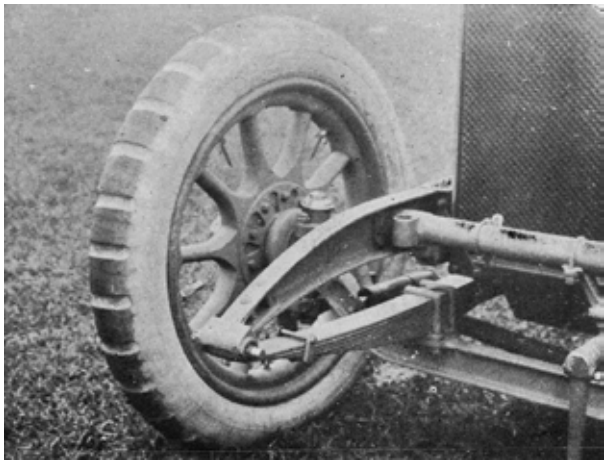

Fig.10

CUPS ON FRONT OF “NEAR” FRONT SPRING
(SAME ON OTHER SIDE)

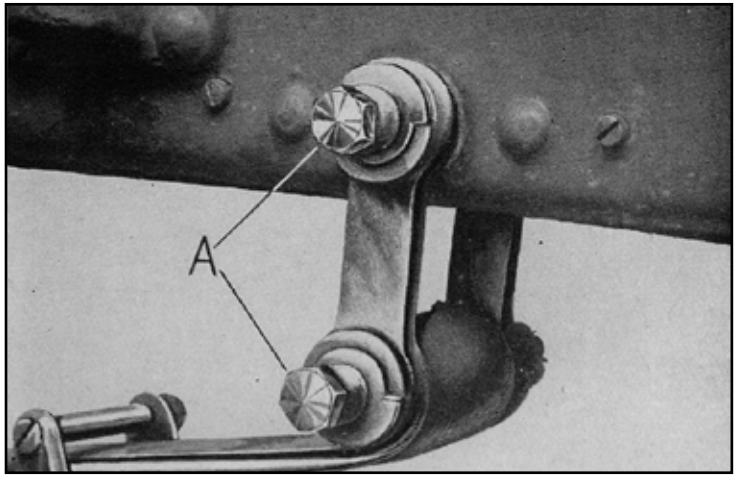

Fig.11

TWO CUPS ON BACK OF “OFF” FRONT SPRING
(SAME ON OTHER SIDE)

12. Starting Handle.

The cup on starting handle should be screwed right home to ensure that theoil is forced along the bearing.

Fig.12

OIL CUP ON STARTING HANDLE

13. Steering Pivots.

Unscrew cap A, Fig 13. and fill bearing exposed with gear oil. Repeat on other side.

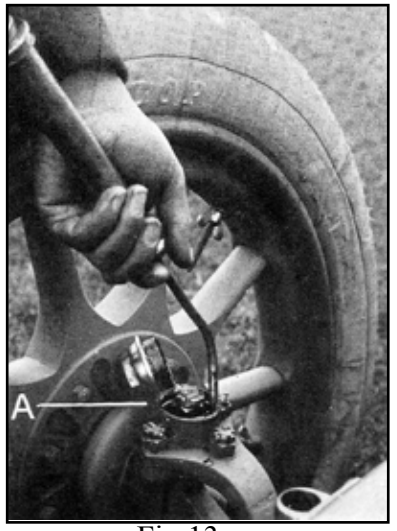

Fig.13

FILLING WITH GEAR OIL ONE OF THE TWO FRONT AXLE PIVOTS