

In a pint of oil by means of a funnel. The central sight-feed oiler of the three located on the dash supplies oil to the transmission case. However, it is advisable to add an extra supply weekly through the top of the transmission case as above described.

**Note—**

The same oil as used to fill the lubricator on the dash can be used in the transmission case. However, it is better to use a heavy gas engine cylinder oil for the transmission case, the reason being simply that a heavy gas engine cylinder oil will not tend to drip and waste away as rapidly as light oil.

### **To Oil Rear Axle**

The rear axle is packed with a heavy grease when the car leaves the factory, and should not require additional grease for two or three months. On the top of the rear axle housing or differential case, you will find a small plug. Once a month it is advisable to inject with an oil gun, about half a pint of the heaviest gas engine or steam cylinder oil. The heavier the oil the better. Once or twice a season it is necessary to add additional grease.

On the rear axle will be found 4 small oil cups. Every day these should be oiled with an ordinary oil can

### **Keep Grease Pocket Full**

On the drive pinion support on the rear axle, you will find a small grease cup. It is imperative that this should be filled with a fairly solid grease, thus forcing the grease into the drive pinion bearing. This grease pocket should be filled every two weeks. Too much importance cannot be laid to keeping this bearing constantly lubricated, and the careful driver will see that this pocket is kept filled with a fairly solid grease.

### **Universal Joints**

On the Messenger there are two universal joints. One is located at each end of the drive shaft. The universal cross is hollow and will hold about a teacup full of oil. It is very necessary that these be kept filled with a supply of heavy cylinder oil. They are lubricated as follows: At the center of the cross will be found a small hole covered by a metal shutter. This can be pushed aside, uncovering the hole. Into this hole can be injected about a teacupful of oil. This should be done to each universal joint at least once in ten days. The oil should be injected with an oil gun—an oil can does not do it thoroughly.

### **To Oil the Magneto**

The magneto is driven by a gear which is completely enclosed. On the front of this gear, an oil cup about a half inch long is provided. Every morning this should be supplied with 8 or 10 drops of ordinary cylinder oil. On each side of the magneto are two very small oil holes. This magneto runs on ball bearings and requires only a very little oil, 2 or 3 drops every thousand miles being ample. If too much oil is supplied to these small oil holes, it will get into the magneto and cause trouble. Under