MOTORING

By "SPANNER"

Lubrication

I wonder how many, or rather how few, cars are run on oil of a properly high viscosity, and here I use the word "viscosity" as indicative of a good "body" at all usual engine temperatures. Statistics would be difficult to obtain, since most motorists would return an answer to the effect that they are using the class of oil recommended by the manufacturers of their cars. And that is just where the trouble lies. When a car is new, when it is just as received from the makers, the mechanical conditions of the motor are such that the clearance between parts is of the minimum order. Then, certainly, a fairly thin oil gives quite good results, and, as thin oil feed is the easiest to regulate, lubricant of this character is what the manufacturers usually recommend. Another reason is that thick oil tends to gum up the piston, and this makes for difficulty in cranking. But after the parts of the engine have worn a little (and bedded in), largely because of the insufficient gravity of the lubricant, what happens is this: The thin oil freely works past the pistons, particularly after the throttle has been closed, and instead of adhering to the cylinder walls, enters the combustion chamber, where it carbonises, thus inaugerating a condition which leads to pre-ignition and other hateful ailments.

Again, when the pistons and cylinders have become worn, the compression does not hold up, and this means that petrol vapour works down past the pistons, thus entering the crank chamber and further reducing the viscosity of the oil. For example: A motorist told me last week that he used about a gallon of lubricating oil every couple of hundred miles. He had tried to reduce the feed, with a seized bearing as the result. On examination we found his motor was badly worn internally, and, moreover, as I suspected, he was using a fairly thin oil. We drained his crankcase, and the content was a light fluid which possessed little lubricating value. It was far thinner than the oil in the tank, and this connoted that the processes above detailed had been in operation. Oil, modern high-grade oil, does not decompose in the crank chamber, and in the instance under mention the fault lay with my friend in sticking to the same sort of oil ever since he had bought the car.

A Safe Rule

The right thing to do is to experiment with a view to discovering what is the heaviest high-grade oil possible to use. Provided the lubricating system will deal with a heavy variety, use it even though it does make the engine rather difficult to crank, since it undoubtedly makes the pistons hold the compression better and, in many other ways, is inherently economical. The question of starting up can be got over by judicious priming, and in this regard a good plan would be to fit a small priming cup high up on the induction branch to be used just before cranking. Some motorists use a cup of this description and prime with kerosene immediately after the day's work, but, on the whole, this practice stands condemned. It results in the kerosene condensing in the cylinders and then percolating into the crank chamber, where it acts as a diluent and so affects the viscosity of the oil. Of course, if the car is already fitted with priming cups to each cylinder, all the better, as this enables the pistons to be freed instanter. Petrol can be used with advantage immediately before starting. It ensures a rich mixture, it does not act as a diluent and it frees the pistons,

The rapidity with which China is rapidly receding from its century-old habits, and taking on modern clothes, has often been pronounced one of the twentieth century marvels. In no way has this progress been proven more forcibly than in the part Chinese women are taking in affairs, social and political. The above picture is from a photograph taken in China of 6 Studebaker 1914 models of 25 h.p. four cylinder. They were all ordered for one family.