

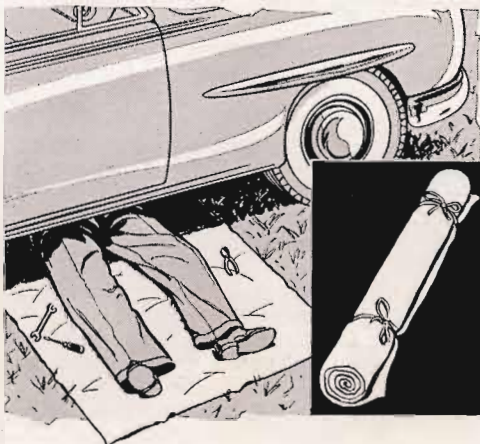
the battery terminals clean and the connections tight and recharge or replace the battery as necessary. The distilled-water level should always be about $\frac{3}{8}$ in. above the top of the battery plates. A fully charged battery cell should have a hydrometer reading of 1.280.

Frequent causes of hard starting are dirty or wet spark plugs, wire or distributor cap which permit the current to leak away. See that these units are kept dry and clean and also clean the distributor breaker points. At the same time, check the points for pitting and proper spacing. If they are burned and pitted, they should be replaced, as well as the condenser which is the probable cause of this trouble.

Check the wires in the distributor for breaks and frayed portions. Examine the top of the distributor cap for cracks and be sure that the spark-plug cables and the center cable from the coil make good contact in the socket terminals. Also inspect the rain guards over the cable to see that they fit tightly and are not cracked. The rain guards prevent moisture from entering the distributor and, therefore, are important to good performance.

Fuel system: Carefully check the fuel system to see that it is functioning properly. All the fittings and lines on both the suction and pressure sides of the fuel pump must be tight and in good condition. The carburetor-float level should be set high enough to provide a richer mixture for winter. The automatic choke also is likely to have a richer starting mixture for winter driving. The choke is adjusted by turning the thermostat control slightly. Take a look at the carburetor air cleaner. If the outside of the unit is dirty, you can be quite sure that the cleaner is no longer operating efficiently and should be removed for a thorough cleaning. Another way to check

Canvas to protect clothes when doing unexpected repairs can be rolled and stored in trunk compartment



Radiator hoses are inspected and defective ones replaced. All hose clamps should be tightened carefully to prevent possible leakage of antifreeze solution

the cleaner efficiency is to remove it while the engine is running. If the engine speeds up considerably, the cleaner is either dirty or damaged. Should the air cleaner not be dirty after a few thousand miles of service, chances are that it is not working properly because of internal failure or bypassing of the air through a leak in the connection between the cleaner and the carburetor. Drain the fuel tank to remove any water and sediment and, if desired, add a special solution to the gasoline to absorb water condensation. The crankcase should be drained and flushed at intervals to remove sludge and other foreign matter which may clog the oil-filter screen and also cause sticky rings and valves.

Perhaps the greatest problem of present-day operation comes from running a car with the motor relatively "cold" due to frequent starts, slow speed and reduced mileage. The result is that raw gasoline works down past the pistons into the crankcase, washes oil from polished surfaces and invites destructive pitting. The gasoline also washes down abrasive metal particles, road dirt and carbon which scratch bearing surfaces and contribute to the scoring of the pistons. These bearing scratches are also caused by lack of oil.