

LAYING UP A CAR FOR THE WINTER

By HERBERT L. TOWLE

BEFORE attacking the working parts of the car, it is well to remove all loose parts and accessories, such as the horn, lamps, baskets, floor mats and spare parts. The lamps should be emptied of carbide or oil, the oil lamps washed with gasoline and the bright parts polished. The horn may be polished also, and the floor mats cleaned of oil so far as possible, as oil soon ruins rubber.

Next to be considered are the tires. A common, but shiftless and wasteful, practice is to leave the tires on the wheels, merely jacking up the axles so that they may be deflated. When tires are left on the wheels, the inner and outer tubes are liable to stick together, and the rubber may crack and rot, especially if exposed to warmth or sunlight. The body should be jacked up, preferably under the frame, so as to relieve the springs, and the tires taken off. Clean the cases or outer tubes, and examine both the cases and the air tubes for cuts and leaks. Repair these carefully, as directed by the makers, and wrap the inner tubes in French chalk or flour of sulphur, folding them loosely, not creasing. Wrap the cases in cloth, and put all away in a dark, cool place. If the treads are worn down so that the fabric is exposed, the cases should be sent to the makers to have new treads vulcanized on, assuming that they are otherwise in good condition. This must be done as soon as the fabric shows itself, as otherwise the fabric will rot and be impossible to repair. Next to depreciation, the tire bill is the largest item in the expense account of the average car, and it is well worth while to give the tires all needful attention.

Empty the water and gasoline tanks, and see that no water remains in radiator, pipes or cylinders to freeze and make trouble. Empty the carbureter, flush it with gasoline and see that no water gets into it during the subsequent processes.

Take off the wheels, and clean and oil the hub bearings. If the latter have balls and are adjustable, take out the balls and examine them and the cups and cones for wear, using, if possible, a micrometer to caliper the balls. If the balls in any bearing show the slightest signs of wear, replace the whole set in that bearing, being sure that the new balls caliper alike within one-half of a thousandth of an inch. Ball bearings should be packed with grease or vaseline, rather than oiled, and should run very slightly loose.

Drain all oil from the motor crank-case, from the gear-case and from the oil cups and tanks. Squirt kerosene into the motor cylinders and crank the motor rapidly by

hand, with the spark plugs out to relieve the compression. This cuts the oil and half-burnt residuum from the cylinder walls and piston rings. Flush the crank-case and gear-case with kerosene, and remove any accumulated dirt. Pour kerosene into the oil cups, etc., and see that it flows or is pumped to all the hearings. If it fails to reach any bearing, it may be that the duct is stopped by dirt or waste. Investigate and remedy. If the shaft bearings are oiled by splash, squirt kerosene into them freely. If you know your car, you may take the shafts out for inspection, but the novice will find this a troublesome job. Planetary gears may be flushed with kerosene, unless they have rawhide pinions, in which case they should never be touched with oil or other liquids. If wick feeds or wipers are used, wash them with kerosene or gasoline.

When the motor and gear-case have been cleaned, oil them with small quantities of the lubricants proper to each.

If you have a steam machine, the scale inside the boiler may be softened with kerosene by first filling the boiler nearly full of water, when cold, then introducing about a pint of kerosene, then running off the water slowly. As the kerosene floats on the water, it will reach all the scale in the boiler from top to bottom. The boiler should be left full of water, not empty. The burner, pilot light and vaporizer should be cleaned inside and out.

Drain the differential case; wash it with kerosene, and oil afresh, as above; and apply the same treatment to all the bearings in steering gear, countershaft, control mechanism, etc.

Disconnect the batteries and clean the electrical apparatus as may be needed. Storage batteries should be fully charged and given a small freshening charge about once a month, when not in use, or else should be slowly discharged and the plates washed, dried and laid away. The former treatment is preferable. The batteries, whether dry or storage, should be left in a cool place, and if they are removed from the car one should not forget to tag the various wires.

Finally, give the body and running gear a good cleaning, which for the body may be followed up with a very little furniture polish or boiled linseed oil and a thorough rubbing with dry cheesecloth or chamouis. Polish the bright parts about the car, and grease the iron parts freely with vaseline.

Treated as above, your car will stand through the winter or through the year without deterioration, and will be ready for business as soon as the tanks are filled.