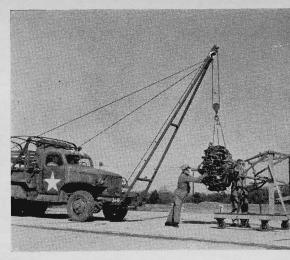
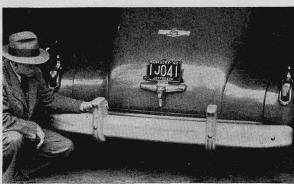
## AUTO ( deas

A PORTABLE HOIST capable of handling 8,000-lb. planes has been developed for use on 2½-ton Army trucks by Lieut. Col. James H. Reed, Jr., of the Air Corps. Designed for winch-equipped vehicles, the hoist is made principally of two lengths of 3½" iron pipe and a wire cable which anchors it to the truck. The hoist rests on the front bumper, and the cable extends from the apex of the hoist to the rear of the truck, where it is fastened with clamps. Brackets at the side of the truck carry the hoist when it is not in use.





WOODEN BUMPERS made of laminated maple bonded with a resin adhesive, like the one at the left, have been subjected to tests that indicate they will withstand an even greater shock than comparable steel bumpers. As an additional advantage, it is claimed for the wooden bumpers that they can be polished very quickly if scratched. Even chunks chipped out of them can be replaced and the scars hidden beneath a new finish. The weight of the laminated type is slightly less than that of steel bumpers.

THIS CAR-TOP RACK is held securely in place on top of the car by ½" by ½" steel clamps that clutch the roof gutters and are drawn taut with turnbuckles attached to ½" cables. The cables are passed through screw eyes installed along the inside length of two 1" thick wooden transverse supports. If these supports are made to conform to the contour of the car top, they can be secured firmly with a minimum of tension. Glue felt or some other soft material to the bottom to protect the car finish. The platform is made of 1" by 3" pieces spaced 3" apart. Paint the unit to match the car.—E. W. L.



## Think- OF AN IDEA!

If you would like to let others know about your pet auto tip—and get paid generously for doing so—just write your idea in 100 words or less, draw rough sketches, and send them to the Automobile Editor, POPULAR SCIENCE MONTHLY, 353 Fourth Avenue, New York 10, N.Y.

ANTIFREEZE SOLUTIONS, used all last winter and saved for re-use this season, can have their rust-inhibiting properties restored by the addition of a chemical inhibitor originally developed for the Army and recently made available to the public. Although the new compound does not contribute to the antifreeze properties, it does neutralize those solutions that have become acid through extended use. When treating a solution, it is advisable also to filter it in order to remove dirt and rust particles which might impair cooling-system efficiency.