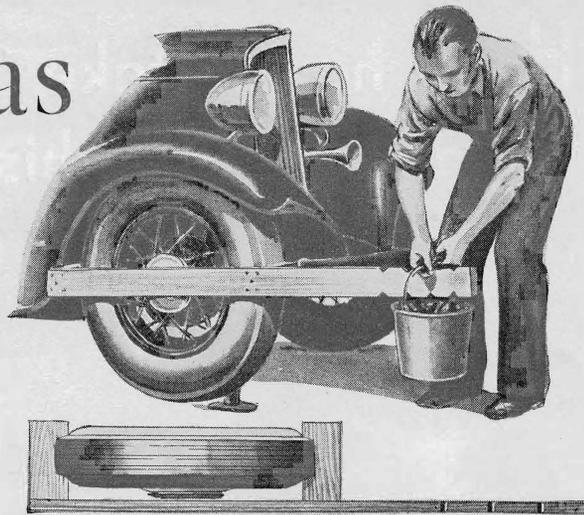


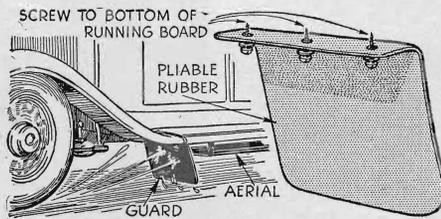
# Ingenious Ideas FOR CAR OWNERS

Our Readers Furnish New Suggestions  
For Handy Repairs and Improvements



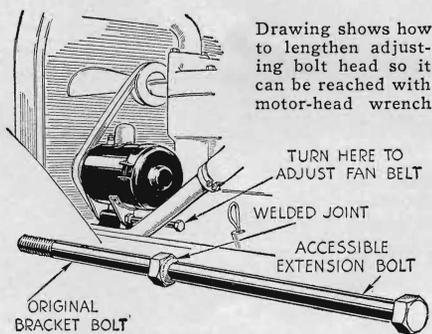
The apparatus illustrated at right, consisting of a notched rod and weighted pail, is used to gage brakes and equalize their pressure on wheels

**O**RDINARILY, the job of equalizing brakes presents a difficult problem to the amateur mechanic and his meager supply of tools. However, by assembling the novel brake tester, shown in the illustration at upper right, anyone can obtain an accurate adjustment quickly and easily. The tester consists simply of a 1-by 3-in. board four feet long supplied at one end with two cupped blocks spaced and shaped to fit a tire and at the other with a series of notches or V-cuts. To this, a pail and some sand or stones are added to complete the equipment. To equalize a set of brakes, first wedge a broom handle or other piece of wood between the front seat and the brake pedal in such a way that the brakes are applied just enough to allow the loosest brake to slip slightly when an attempt is made to turn the wheel. Then jack up that wheel, tighten the brake adjusting bolt as much as possible, and slip the brake adjuster in place over the tire. Finally, hang the weighted pail in one of the notches and loosen the brake adjustment until the weighted lever barely turns the wheel. To bring the remaining brakes to the same adjustment, simply repeat the process with each wheel with the pail hung in the right notch. If you wish the rear brakes to grip before the front units, simply adjust the rear wheels with the weight in the end notch and set the front brakes with the weight hung in the second V-cut.—S. A. F.



## Rubber on Running Board Protects Radio Antenna

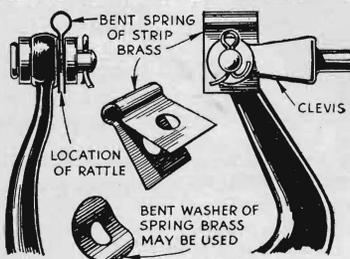
**BY MOUNTING** a square of rubber under the front edge of the running board, you can protect a running-board type of radio antenna from injury. It also will serve as a shield to prevent mud from being splashed up where it might coat the antenna and cause a possible short-circuit to the car body. Any piece of pliable sheet rubber can be used; rubber stair pads form an exceptionally good source of material.—D. W. P.



Drawing shows how to lengthen adjusting bolt head so it can be reached with motor-head wrench

## Silencing Brake Rods With a Spring Clip

**ALTHOUGH** various types of clips and springs are used to silence brake rod clevis joints, most of them are designed to stop only one kind of rattle. A better and more universal clevis-joint silencer is the homemade spring clip shown in the illustration. Made from spring brass or a wide corset steel, it is placed between the outer washer and the brake link at the joint. Serving to spread the parts, it holds the assembly tight, yet does not interfere with the brake adjustment. A spring washer bent as shown also can be used.—D. J.



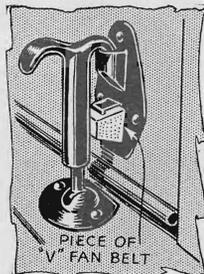
Homemade clip that silences brake rod joint

## Handy Bolt Extension Speeds Adjustment Work

**ON CARS** where fan-belt tension is adjusted by moving the generator, it is often difficult to find a wrench that will both fit and reach the partly hidden bolt on the generator bracket. To get around this on my car, I had a one- and one-half-inch length of cylinder-head bolt welded to the top of the adjusting bolt head. This provides just the right amount of extension and makes it possible for me to use my cylinder-head wrench when making adjustments. Incidentally, this same kink can be applied to screws, bolts, and adjustments located in out-of-the-way places on any piece of machinery.—E. T. G., Jr.

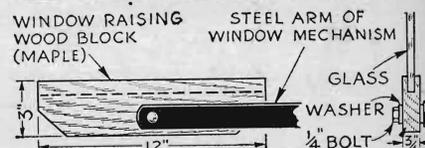
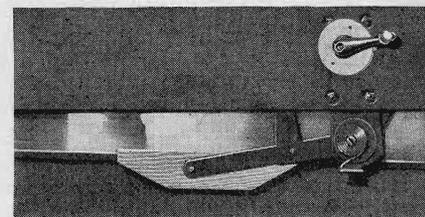
## Stopping Hood Rattles With Old Fan Belt

**WHEN** the rubber pads under hood fasteners wear, the hood rattles. A repair can be made with a section of old fan belt. Remove the worn rubber and insert a suitable length of old fan belt.—H. V. T.



## How to Repair Metal Arm That Supports Window

**IF YOU** own a closed car and an opened window suddenly fails to respond when the crank is turned, it may be that the metal arm supporting the glass has rusted through. How the writer repaired this arm on his car is shown in the illustrations. First, a new supporting arm for the glass was fashioned from a piece of three-quarter-inch maple. Along the top edge, a one-quarter-inch groove was cut to take the bottom of the glass. Then the original stud at the end of the steel raising arm was punched out and a one-quarter-inch stove bolt substituted as a mounting for the new support, an iron washer being used on each side of the wood block and the end of the bolt being peened over to serve as a rivet. To make the glass slide easily, the groove in the support was coated with graphite.—H. P. S.



An easy way of repairing metal arm that supports a closed car window is shown above