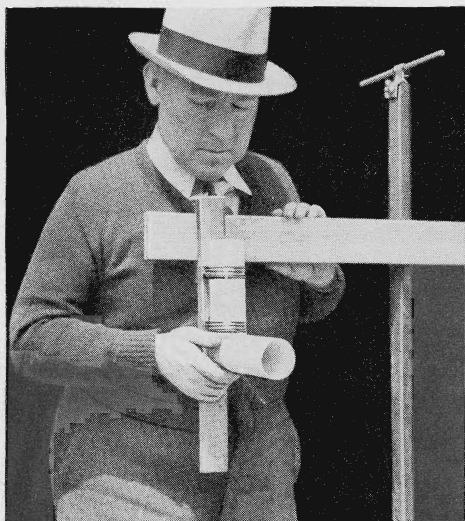
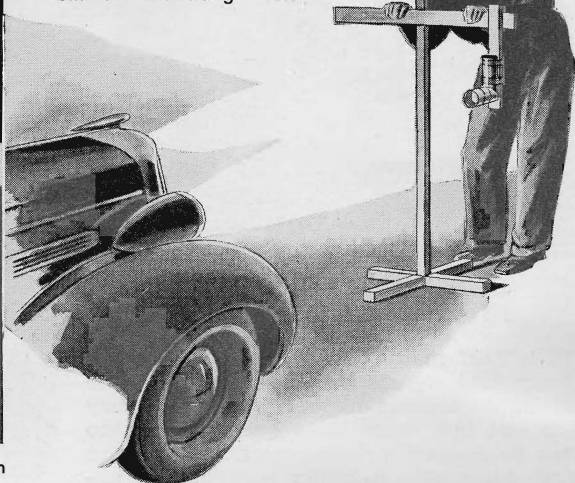


# Headlight Tester for Car Owners



The "photometer" shows the center of the beam

Sighting on the center of a car hood to line up the unit for a headlight test



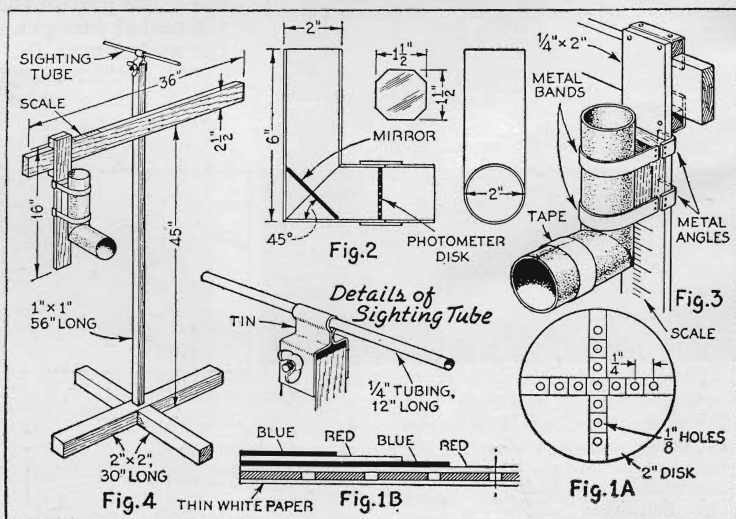
YOU can adjust the aim of your car's headlights accurately with this easily made, inexpensive tester. The heart of the unit is a homemade "photometer" which tells you when it is in the center of a headlight beam by the intensity of the light that penetrates it. Knowing the proper setting for your lights, all you do is line the device up 6' in front of your car, "get a bead" through the sighting tube on the car's center line, take readings, and proceed with the necessary lamp adjustments.

The photometer is made from a 2" disk of cardboard. Draw diameters on the disk, intersecting at right angles. With a paper punch or drill, make a  $\frac{1}{8}$ " hole in the center and at  $\frac{1}{4}$ " intervals along each line as in Fig. 1A. Now lay strips of red transparent cellulose to cover all the holes. Next, as indicated in Fig. 1B, lay strips of similar blue material so the outer three holes in each line are covered. Cover the two outer holes with another layer of red, and finally the outside holes in each

line with still another layer of blue cellulose.

Cement a disk of thin white paper over the entire back of the photometer disk. Hold it against a strong light and mark the paper covering each "window," starting with "1" for the center hole, "2" for the four adjacent holes, and so on. Mark the figures so that they all can be read without having to turn the disk.

Glue together at (Continued on page 200)



Follow the details shown in this drawing carefully in constructing the tester