

A tape measure can become a useful scientific tool when it comes to buying a turkey. Bring one to market, along with the dimensions of your oven jotted down on a slip of paper, and you will be able to choose just the right size turkey.

Whichever it is, a six-pound broiler type bird or a 25-pound gobbler, the turkey at the Thanksgiving Day table is more than the main dish. It serves as a link between Americans today and those first Americans who joined in giving thanks for the bountiful harvest of good things in this land.

Science News Letter, November 16, 1957

## ENGINEERING

### Carburetor Can Reduce Harmful Auto Smog

► THE MAJOR factor in automobile exhaust air pollution can be almost eliminated if motorists are willing to pay more for their driving, two General Motors Corporation research engineers have reported.

A new "maximum performance carburetor" that eliminates 90% of the smog-producing nitrogen oxides in auto exhausts was described at the Pittsburgh meeting of the Industrial Hygiene Foundation by George J. Nebel and Ralph W. Bishop.

The price for reducing the smog problem would be about \$70 per year for the average motorist. The engineers reported the maximum performance carburetor reduced gasoline mileage about 26% in driving tests in cities and suburbs.

Nitrogen oxides, primarily from auto exhausts, have been pinpointed as the major contributor to smog and related types of air pollution. The nitrogen compounds, as well as carbon monoxide and other undesirable or dangerous gases, result from imperfect combustion of fuels in the automobile engine.

Although the new carburetor greatly reduces nitrogen oxide output, it also increases carbon monoxide content of exhaust fumes.

The engineers suggested smog from automobiles could be eliminated completely by combining the special carburetor with a catalytic converter that would burn the exhaust fumes by chemical reaction. However, they indicated that putting the idea into practice would require considerable future engineering development.

In driving tests, the maximum performance carburetor cut gasoline mileage from about 16 miles per gallon to about 12 miles per gallon in 2,500 miles of city and suburban driving. The loss of approximately four miles per gallon amounts to a \$70 per year increase in gasoline costs to the average motorist who drives 12,000 miles.

Science News Letter, November 16, 1957

## ● RADIO

November 23, 1957

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network will not be broadcast November 23, due to scheduled football game.

"Adventures in Science" will resume at its regular time Saturday, November 30. Check your local CBS station.

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