

for the best work on this size or more than \$6.45 when lower quality rubber and other materials are used. However, there are shops that will do the work for considerably under this price. Such savings do not pay. If a lower price is charged, much of the vital inspection, minor repair work and other steps to rebuilding the tire to original condition must be skipped.

Toward the middle of January the government issued an order requiring that all rubber used for passenger car treading be cheapened by using less crude

rubber and more reclaimed rubber, carbon black and other ingredients. Many shops have a supply of the former higher grades of rubber on hand which may last for a few weeks. However, shortly all passenger car owners will be getting the cheaper rubber. This will probably last less than half as long as the original tread.

This is just one of the many steps the government has taken to allow as many people as possible to tread their tires.

*Science News Letter, February 7, 1942*

## ENGINEERING

## Power For War Industries Will Be Increased

### Considerable Saving of Critical Materials and Labor Possible by Making Existing Equipment Do More Work

**M**ORE power to meet war's demands will be obtained out of existing electrical machinery, the American Institute of Electrical Engineers heard at their meeting in New York.

New plants and transmission lines will be needed to meet war's increasing demands for electrical energy, but a considerable saving of critical materials and of labor can be effected by making existing equipment do more work. This was pointed out by Philip Sporn of the American Gas and Electric Service Corporation, New York City.

Existing equipment is capable of a considerable overload. It is desirable to examine how much of this could be carried regularly with reasonable safety during the war time, H. P. St. Clair, also of the American Gas and Electric Service Corporation, declared.

In addition, there are devices, voltage regulators, capacitors and boosters, by which the capacity of a transmission line can be increased, or a saving of copper effected, Harold Cole of the Detroit Edison Company pointed out. Some rearrangement of the facilities for greater economy and efficiency would accomplish the same purpose.

### Mobile Transformer

**A** MOBILE 2,500-kilowatt transformer substation that can be rushed on a truck to any spot where needed, was described by M. W. Reid of Ebasco Services. This transformer can draw

high-voltage current from any point along a power line and transform it to a lower voltage for further transmission along a temporary line, or to a still lower voltage for immediate domestic use. It can supply a town, a camp or a group of factories with the electricity they need and at any voltage they need, when through disaster of war their regular supply is cut off or deficient.

### Prizes Awarded

**T**HE Alfred Noble Prize for 1940-41 was presented to Robert F. Hays, Jr., of the Sperry Gyroscope Company's research laboratories, for his paper entitled "Development of the Glow Switch."

The Edison Medal, highest award of the A.I.E.E., was presented to Dr. J. B. Whitehead, professor of electrical engineering at Johns Hopkins University.

*Science News Letter, February 7, 1942*

## RADIO

*Saturday, February 14, 1:30 p.m., EST*

On "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

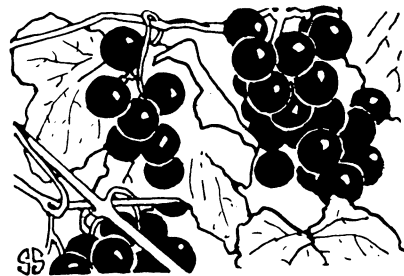
Lawrence Langner, New York patent attorney, who is one of the principal figures in the Theatre Guild and also a member of the National Inventors Council, will discuss how inventors can help win the war.

Listen in each Saturday.

*Tuesday, February 10, 10:15 p.m., EST*

Science Clubs of America programs over WRUL, Boston, on 6.04 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in high schools, throughout the Americas. Have your science group listen in at this time.



### Bible Botany

**T**HE BIBLE is filled with reference to plants, literally from cover to cover. It begins in the first chapter of Genesis, with the earth bringing forth "grass, the herb yielding seed, and the fruit tree yielding fruit after his kind;" and the last chapter in the Apocalypse of St. John tells of a mystical Tree of Life growing in the New Jerusalem. In between, many scores of species are mentioned. There is no book in The Book that does not have at least a little botany in it.

A recent book by Eleanor A. King (*Reviewed, SNL, this issue*) brings together the essential information about plants mentioned in the Scriptures, and tells how many of them can be made even more vividly familiar by actual cultivation in our own back yards.

Many of the plants are thoroughly familiar to us, some of them but little changed since the days when Abraham and Moses and Jesus beheld them, others vastly improved over the ancient forms through centuries of selection and breeding.

Corn and oil and wine, that basic nutritional trilogy, are among those but little altered. "Corn," in the Bible, always means the common bread grain of the time; usually wheat, sometimes including barley. American corn, or maize, is of Indian origin and of course was unknown in ancient Palestine. "Oil" always means olive oil; and the cultivated olives of the Near East, grown mainly for the oil press, are essentially the same trees they were two and three thousand years ago. The vine that yielded Biblical wine is rather unlike the table-grape varieties of the eastern United States, but quite similar to the European type of wine-and-raisin grape grown in California, especially the small, dark "Mission" variety. (*Turn to page 91*)