

Do You Know?

Male and female *turkeys* become sexually mature when about seven months old.

Wheat accounted for over half the total tonnage of foods exported from the United States during 1946.

Fires seldom occur in clean houses, stores and shops where there are no combustible rubbish accumulations.

The hardness of *lead pencils* depends upon the amount of clay used in the graphite that constitutes the so-called lead.

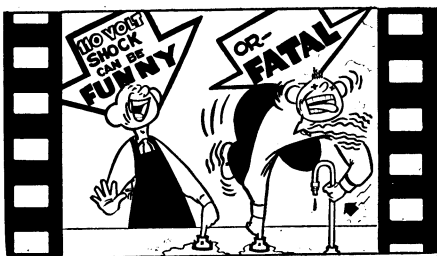
Smoke belching from giant chimneys in certain factory cities creates a menace to flying due to decreased visibility above the cities.

Yarn and rope, made by weaving *coconut fiber*, have long been manufactured in Ceylon for domestic uses and export.

Most *cinnamon* used as a spice in America is the powdered bark of the cassia tree, which is more pungent than the bark of the true cinnamon tree.

There are today about 300 synthetic *detergents* or dirt removers, on the market, but only a few types promise to compete with soap in the household.

SAFETY IN THE LAB



1 Picture + 1 Laugh = 1 Lesson
An educational Slidefilm made
by teachers for teachers

53 frames, Postpaid—Insured \$3

VISUAL SCIENCES

599-S SUFFERN, N. Y.

air is slowed down from supersonic to subsonic velocity, forming a second kind of shock wave, one which is perpendicular to the airflow. Both types of waves are called "bow waves" in this case. Because this second wave extends out beyond the area affected by the leading edge, it is swept backward by the supersonic speed and creates a large resistance.

Engines are available to propel planes at supersonic speeds, and the knife-sharp wing may go far in solving the super-

sonic problem. There is still the problem of a type of construction to withstand the high speeds and the shock pressures. The XS-1 and the Douglas Sky-streak in their test flights are gradually being operated at higher and higher speeds. They are both successful at the speeds at which tested, but what will happen when the attempt to get through the transonic barrier is made is as yet unknown.

Science News Letter, October 11, 1947

PHYSICS

Atomic Power Made Safe

Special precautions necessary including the elimination of all dust. Wastes can't be dumped but must be cleaned up to last drop.

► MAN CAN learn to live safely with atomic power installations, just as he has learned to live with high-pressure chemical retorts, high-voltage electrical machinery and high-temperature blast furnaces, predicted Dr. Karl Z. Morgan, director of the health physics division of the Monsanto Chemical Company's Clinton Laboratories at Oak Ridge at the New York meeting of the American Chemical Society.

This does not mean that old-timers in an atom-power plant can afford to become careless, any more than old hands in an electrical power plant can. They will just know the rules, stay within them, and be safe. Thus far, with all the atom-plant hands necessarily new hands, they are leaning over backwards in sticking to safety rules—and thus far not a single case of radiation damage has been reported from the plants at Hanford, Oak Ridge and Chicago.

Some new safety practices, peculiar to the handling of fissionable material, will have to be followed, the speaker warned. For example, whereas in most industries only excessive dust in the air is considered dangerous, in atomic plants any dust whatever must be regarded as a menace and eliminated.

Again, the easy-going custom that many industries have, of dumping liquid wastes down the drain and letting the fish in the river do the worrying about pollution, just won't do in plants where all wastes are radioactive. They will simply give a deadly metal plating to aforesaid drain, to the eventual undoing of some poor, unsuspecting plumber. Atomic industries of the future will have to clean up their own messes

to the last microscopic drop and crumb.

Greater safety in one of today's pre-atomic industries will result from a new phosphorus conversion method described before the meeting by three TVA chemists, Phillip Miller, R. A. Wilson and J. R. Tusson, of Wilson Dam, Ala. They have developed a new and better way of turning white phosphorus, which is dangerous to handle, into red phosphorus, which is safe.

Phosphorus changes from the white form to the red upon heating. Conventional practice has been to heat it in one-ton batches; but this process is uneven, conversion is incomplete and subsequent purification difficult. In their new form, white phosphorus is melted and the heating continued until the mass is partly converted. Then a blast of hot gas evaporates the remaining white phosphorus (which is recaptured and remelted), leaving highly purified, safe red phosphorus.

Science News Letter, October 11, 1947

YOUR HAIR AND ITS CARE

By O.L. Levin, M.D. and H.T. Behrman, M.D.

Two medical specialists tell you what to do to save and beautify your hair, stimulate healthier hair growth, and deal with many problems, as:

Dandruff — gray hair — thinning hair — care of the scalp — baldness—abnormal types of hair—excessive oiliness—brittle dryness—hair falling out—infection —parasites—hair hygiene, etc., etc.

"A worthwhile book full of important information."
Ohio State Medical Journal.

Price \$2.00, incl. postage, 5-day-Money-Back Guarantee
EMERSON BOOKS, Inc., Dept. 976-C, 251 W 19th
Street, New York 11