

CHEMISTRY-NUTRITION

Need Laws To Guard Food

Protection of foods by pre-testing chemicals added to them should be required by law just as drug testing is. Guesswork presents a health threat.

► **CHEMICALS** added to food, either to enhance its qualities or to protect it from plant pests, are a potential source of danger to our health. This warning was given by Dr. W. B. White, chief of the Division of Food, U. S. Food and Drug Administration in Washington, to the American Public Health Association meeting in New York.

We need laws to protect the safety of foods by pre-testing of chemicals added to them, just as the present laws cover the safety of new drugs before they are released on the market, Dr. White declared.

Many chemicals, he said, are pre-tested for wholesomeness but a few have only been guessed at. The result in one case was over 100 deaths and in another permanent leg paralysis in several hundred persons. The deaths were caused by the incautious adding of the poisonous chemical diethylene glycol to elixir of sulfanilamide by a young chemist who thought it would be an ideal solvent for the drug. The many paralysis patients were the victims of a poisonous chemical added to alcohol during prohibition days.

These kinds of accidents are forestalled now by the Food and Drug Act. But present food laws give inadequate protection. Arsenic, or nitrogen trichloride, was used for 25 years for treating flour, and discontinued only last year after it was discovered it gives fits to dogs. There may be other potentially dangerous chemicals in our foods but there is no way of avoiding them under present laws.

Dr. White cautions that the "situation calls for genuine concern about the future, but not for alarm or hysteria about the present."

Two resolutions have been recently introduced before Congress to make a study of the situation.

Hearings have been set by the Federal Security Administrator for Jan. 17, 1950, on tolerances of chemical sprays on fresh fruits and vegetables. This is intended to be a pooling of information on insecticidal poisons and their near relatives which are used to spray crops to preserve them.

"Wishful guessing" has also marked the use of DDT in the past. At one time it was claimed that because there were no apparent ill effects in the use of DDT to delouse combat troops during the war it was harmless. Since then it has been proven that DDT has harmful effects in experiments with rats. Cows were shown to secrete DDT in their milk when sprayed with it to kill flies. This situation was corrected

but less is known about other insecticides which may be a chronic threat to the nation's health.

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CHEMISTRY-AGRICULTURE

Corn's Ripeness Found By Chemical Reaction

► **HEADLIGHTS** on bicycles or automobiles of many years ago were lighted by the same chemical reaction through which the maturity of sweet corn can now be determined.

Acetylene headlamps on bikes and automobiles used the reaction of water on calcium carbide to produce a gas that would burn to give light.

The amount of moisture in ripened sweet corn is dependent upon its maturity. In the method disclosed by the Western Regional Research Laboratory of the Department of Agriculture, Albany, Calif., a sample of ripening corn is ground very fine and calcium carbide added. The amount of acetylene gas given off by the action of the moisture in the corn is measured, and from this the maturity determined for that variety of corn, locality and season.

Canners need to be able to check the

maturity of corn to gather it at just the right stage to insure a desirable and uniform finished product. Previous testing methods have been costly or time consuming.

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AERONAUTICS

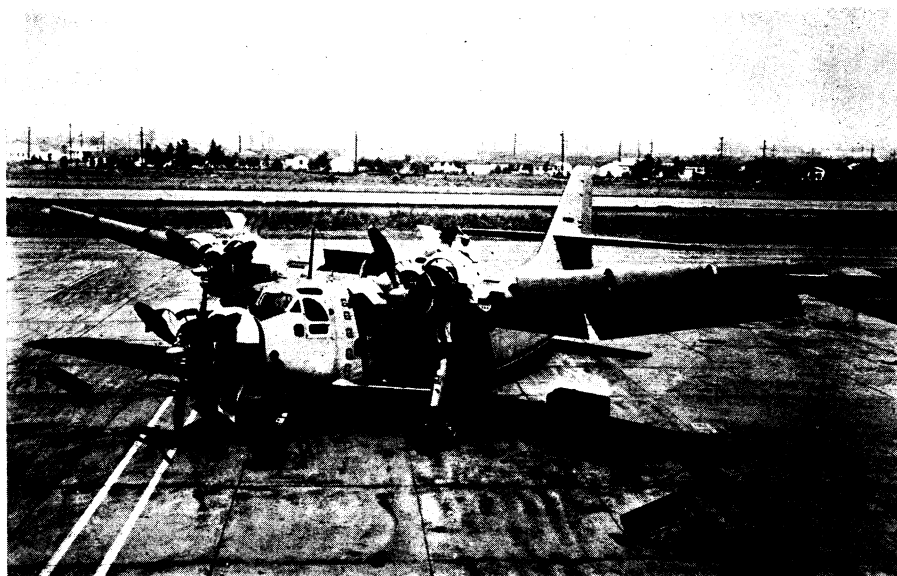
New Plane Has Parts Easily Accessible for Repair

► A **LOW-DOWN** engine in the nose and two high-up engines in the wings are striking features of a new Air Force assault transport now completed and undergoing tests in Hawthorne, Calif., by the manufacturer, the Northrop Aircraft, Inc. However, the important feature of this plane, a raider to be known as C-125, is the ease with which all parts can be reached for repair in advanced positions with a minimum of repair equipment.

The nose engine is accessible from a six-foot stepladder. Steps recessed into one side of the fuselage permit access to the top of the wing. A portion of the front wing edge under the wing engines can be opened to form a working platform for engine maintenance. Trunk-like fasteners, requiring no special tools, enable mechanics to get at the engines with ease. Wing leading edges can similarly be "unbuttoned" for inspection of control, hydraulic and electric systems.

This plane, with its high wings, has sturdy, fixed landing gear able to take the shock of high-weight landings on rough terrain. Wheels can be changed in an emergency without use of a jack. The craft can be used to transport heavy cargo or to accommodate 32 men with their equipment.

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ASSAULT TRANSPORT—The Northrop Raider C-125 has been designed to make all parts of the plane easily accessible for repairs.