

## PUBLIC HEALTH

# TNT Danger Reduced

Munitions plant workers now face less hazard than workers in 1917-1918, physicians are told. Shock is main symptom.

➤ AMERICAN munitions plant workers are in less danger of TNT poisoning than munitions workers of 1917-1918, it appears from the report of Dr. Lemuel C. McGee, medical director of the Hercules Powder Company, presented to the Congress of Industrial Health sponsored by the American Medical Association, in Chicago.

"There is reason to believe," he stated, "that recent refinements in methods of manufacture of TNT in America yield a purer product and afford less exposure to the operators than did the methods in vogue in World War I."

One protective device against TNT poisoning, he said, is to begin the shift on a full stomach.

Increased appetite and stomach distress simulating hunger are among the effects of TNT poisoning. Yellowing

skin and skin inflammation are others. Most serious is liver damage, which may lead to death. Early diagnosis and removing the affected worker from contact with the chemical are essential for reducing mortality from TNT liver damage.

Nitrous fume poisoning, suspected of having caused the deaths of many victims of the Boston night club fire, is a potential hazard in munitions plants in war times.

Under normal conditions proper ventilation protects workers from these fumes, but the demands of war-time production "invite lapses in proper control of the fumes," Dr. McGee warned.

The chief offender in the nitrous fumes is nitrogen dioxide, existing in equilibrium with its polymer, nitrogen tetroxide.

Shock is the predominating symptom

in one type of nitrous fume poisoning. The victims show signs of suffocation, collapse of the blood circulation; turn blue, and death comes rapidly. The treachery of nitrous dioxide, Dr. McGee warned, lies in the apparent mildness of the damage to the exposed men.

In the beginning the fumes have a slightly pain-killing, sleep-inducing effect which probably stops the cough reflex that would warn the worker of his danger. Usually the worker feels too well immediately after accidental contact with nitrous fumes to seek or be willing to have medical attention. Recently, Dr. McGee related, an experienced chemist, the supervisor of a nitric acid plant who knew well the effects of contact with nitrogen dioxide, was greatly chagrined to find himself in the hospital under treatment for lung edema from having himself become exposed to the danger without realizing it.

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## HORTICULTURE

## Save Wood Ashes For Garden Fertilizer

➤ VICTORY gardens next spring can benefit from the wood fire that is crackling in your living room now. Save all wood ashes, keep them in a dry place until spring, and rake them into the soil when you are getting your seed bed ready, is the advice of H. G. M. Jacobson, Connecticut Experiment Station agronomist.

Wood ashes are a good source of potash and lime, and they also contain some phosphate. They are not a complete fertilizer, however, because they are lacking in the essential nitrogen. If this is needed (and it usually is) it must be obtained from some other source. Well-rotted manure is best, if available.

Ashes of paper burned in the incinerator are not safe to use, Mr. Jacobson cautions. Although paper is made from wood, it is apt to contain acids and other substances added in the manufacturing process, and these may not be good for plants. Coal ashes, of course, are of no value as fertilizer and should never be used.

Even wood ashes should be used with judgment; there can easily be too much of a good thing with fertilizers. Excess of potash causes plants to have pale, undernourished-looking tops. This difficulty is more apt to arise in alkaline than in acid soils.

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**MOTOR FOR AIRCRAFT**—Only a little larger than a watch is this new fractional horsepower motor for airplane control and protective devices. It weighs only eight ounces, is 3 9/16 inches long and 1 3/8 inches in diameter; the rotor of the motor is a little smaller than a five-cent piece. It was designed by General Electric.