

CHEMISTRY

Detects Impurities

Ultraviolet light used in seeking out almost incredibly small percentages of aluminum in other metals, American Chemical Society told.

► **ULTRAVIOLET LIGHT**, causing dyestuffs to shine with ghostly visible radiations in the dark, has been put to use in detecting almost incredibly small percentages of aluminum existing as impurities in steels, bronzes and other metals, where its presence may be a weakening factor. The new method was reported before the meeting of the American Chemical Society by Alfred Weissler of the Naval Research Laboratory and Prof. Charles E. White of the University of Maryland.

The metal sample is first dissolved, usually in an acid bath; then the dye-stuff is mixed with it and the ultraviolet

lamp is turned on. The fluorescent light will betray the presence of aluminum if it is present in the original material in dilutions as low as a thousandth of one per cent. From this up to about one per cent is a range in which the fluorometric method can be used to advantage for quick determination of aluminum. Advantages claimed are "speed, sensitivity, accuracy and freedom from interference."

Germ-Killer from Tomatoes

► **TOMATOES**, good for you because of their vitamin content, may play another part in adding to health through production of an anti-germ remedy, it appears from a report by Thomas D. Fontaine, George W. Irving, Jr., and S. P. Doolittle, of the U. S. Department of Agriculture.

These scientists have isolated from the tomato plant a new antibiotic, or material of the penicillin class, which they call tomatin. In test tube experiments it has marked activity against germs of both the gram positive and gram negative groups. It is also particularly active against some of the fungi that cause disease in plants and animals.

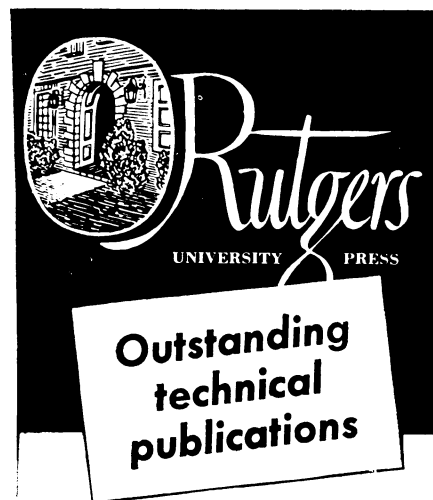
Athlete's Foot Remedy

► **DISCOVERY** that a vitamin K-like substance exerts a powerful action on the four fungi that commonly are responsible for athlete's foot, was reported by Milton J. Golden and Kurt A. Oster of the research laboratories of McKesson and Robbins, Inc., Bridgeport, Conn., at the meeting of the biological chemistry division.

They said laboratory tests on market preparations for curing the common skin ailment showed that most substances used have a ceiling of activity. Thus, after a certain amount of a remedy has been applied, additional amounts do not exert any more influence.

Science News Letter, April 20, 1946

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