

BACTERIOLOGY

Sterilizing Rays Keep Germs Away From Wounds and Food

First Used in Hospital Operating Rooms, Germ-Killing Lamps Now Shine in Meat Markets, Restaurants, Etc.

DEATH RAYS that prevent your food from spoiling, your wounds from getting infected, and your lips from being soiled with other people's germs traveling on glasses and tableware, were recently demonstrated to the American Institute in New York.

Development of the microbe death ray may also add a new word to American vocabularies—"rentschlerization." It is derived from the name of the man who developed the ray, Dr. Harvey C. Rentschler, director of research in the lamp division of the Westinghouse Electric and Manufacturing Company. "Rentschlerization" will rank with "pasteurization," it is claimed.

"Rentschlerization" is the process of killing disease germs by exposing them to the microbe death ray, which is one single ultraviolet ray with a wave length of 2537 Angstrom units. The ray is harmless to humans. Associated with Dr. Rentschler in developing the microbe

death ray was Dr. Robert F. James, Westinghouse biophysicist.

The microbe death ray, released from slender tubes called Sterilamps, made its surgical debut in the operating room of Duke University Hospital under the direction of Dr. Deryl Hart, surgeon-in-chief.

Infections after surgical operations do sometimes occur even with the most careful, germ-free surgical technic, because before the development of the new microbe death ray it was impossible to keep the air of an operating room germ-free.

Since installation of the microbe death ray tubes, post-operative infections have practically disappeared from his operating room, Dr. Hart reported. Furthermore, patients had much lower temperature curves following operations in which these tubes were used to keep germs out of the air over the operating table. As a result of Dr. Hart's

successful experiments, which were in progress for nearly two years, Sterilamps have been installed at the Mayo Clinic, the New York Medical Center, the Perth Amboy, N. J., Hospital, and elsewhere.

The search for the microbe death ray started from the angle of food preservation. Cooking is one form of sterilizing food, and certain chemicals will preserve foods. So do refrigeration and pasteurization. None of these methods is universally practicable. Neither chemicals nor heat, for example, can be satisfactorily applied to the preservation of such perishable foods as meat, and often, even in very cold refrigerators, meat is attacked by molds. Now the butcher can install Sterilamps in his refrigerator and even in his display cases and keep his meat protected both from germs and from loss of water and flavor due to the low temperatures previously needed to preserve the meat.

Keeping glasses and tableware germ-free in restaurants is not only a question of washing them clean and sterilizing them but of protecting them from germs in the air that can reach clean dishes stacked on shelves. Sterilamps seem to be the ideal solution to this important sanitary problem, since they are inexpensive and can be easily installed.

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PLANT PHYSIOLOGY

Part of Vitamin B₂ Heightens Life in Leaves

MORE vigorous life in leaves results from the presence of nicotinic acid, which has been demonstrated as one part of the organic complex known as Vitamin B₂, it is indicated by experiments in the Osborn Botanical Laboratory of Yale University. The research results are reported by Ray F. Dawson. (*Science*, March 18)

Mr. Dawson placed the cut ends of tobacco leaves in solutions containing nicotinic acid, and other leaves in plain water as controls. The leaves receiving nicotinic acid lived longer before wilting, took up more water, formed more nicotine, and increased more in weight than did the controls.

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FOR SAFER GLASSWARE

Waitresses no less than surgeons help in making life safer and cleaner, as they flood with microbial death-rays the glassware used by patrons, ridding it of the invisible load of germs that often survive ordinary dishwashing.

A mystery concerning hides that arrived from a Latin American country in poor condition was solved when a bacteriologist found that insects hatched in the hides during shipment.