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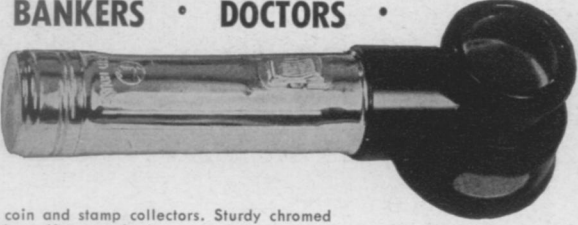
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**BACTERIOLOGY****Ultraviolet Radiation Knocks Out Staphylococci**

THE USE of ultraviolet radiation appears capable of keeping antibiotic-resistant staphylococci on the run in hospital operating rooms.

This method, which kills bacteria in the air, has been in use at Duke Hospital, Durham, N. C., for more than 20 years in as many as 15 operating rooms. The results have been nothing short of miraculous, Dr. Deryl Hart, professor of surgery at Duke University School of Medicine, reports in the Journal of the American Medical Association, 172:1019, 1960.

Keeping pathogenic bacteria out of a clean wound is preferable to trying to control their growth or to kill them after they enter. With the present widespread distribution of antibiotic-resistant staphylococci, prevention of such contamination is now all the more important, he explains.

In the Duke Hospital, so-called unexplained infections in clean operative wounds have been both explained and eliminated, to a great extent, by a variety of measures aimed at limiting the contamination of the air with pathogenic bacteria. Also, the use of ultraviolet radiation kills the remaining bacteria that inevitably get into the air, and, by sedimentation, onto exposed surfaces.

Dr. Hart reports he believes that most bacteria spread through the air and this is responsible for most of the so-called unexplained infections in clean operative wounds. Destroying bacteria floating in the air obviously offers protection regardless of the source of the bacteria.

A study revealed that air contamination rose rapidly in a bacteria-free operating room when it was occupied. Staphylococci were the main offenders and were directly related to the number of persons in the room, how long they remained, and the time of year. Winter is the worst season.

Both patient and hospital personnel can easily be protected from the rays, he stresses. Nurses and doctors wear eye shades and glasses. Patient's eyes are usually closed. The skin is covered or shaded during frequent or long periods of exposure.

Science News Letter, March 19, 1960

**ASTRONOMY****Canadian Scientist Shows How Earth Is Expanding**

A CANADIAN scientist has figured out how the earth could be expanding—a conclusion reached independently by at least two scientists in the last two years.

Dr. A. E. Beck of the University of Western Ontario's department of geophysics, London, Ontario, reports that an expansion of the earth's diameter of about 62 miles is "quite possible" even if there are no external or internal sources of energy. The expansion would result from the earth's continual attempt to proceed from a higher state of potential energy to a lower state, Dr. Beck stated in Nature, 185:677, 1960.

Science News Letter, March 19, 1960