



PUBLIC HEALTH

Mist of Propylene Glycol Effective in Sterilizing Air

AN ODORLESS, unnoticeable mist of propylene glycol sprayed into the air may be the answer to the long search for a practical way of preventing the spread of diseases like influenza in places where many people must be crowded together.

The propylene glycol mist effectively sterilizes the air, Drs. O. H. Robertson, Edward Bigg, Benjamin F. Miller and Zelma Baker, of the University of Chicago Medical School, report. (*Science*, Feb. 28.)

The germ-killing effect of the mist was tested both by spraying it onto bacteria and by spraying bacteria into the mist. The test conditions were thus equivalent to those in which bacteria get into the air either through ordinary breathing or by sneezing or coughing.

The effectiveness of the mist, it is said, comes from the fact that each droplet contains the same concentration of the chemical as does the parent solution, and therefore the anti-bacterial agent is enabled to act in high concentration on bacteria suspended in the air. The mist is reported to maintain its effectiveness for an hour and a half or more.

The chemical, propylene glycol, is said to have no poisonous effect on humans in the quantities used, and the mist does not appear to stain or cause a noticeable film.

Spread of disease in air raid shelters, barracks, industrial plants, sick rooms,

and crowded meeting and housing places might be cut down or prevented by the use of this mist, it is suggested, although its effectiveness in reducing cases of colds, influenza, pneumonia and the like cannot be gauged accurately until extensive clinical studies have been made.

The mist or aerosol method of sterilizing the air is likely, it is said, to be more effective and less costly than ultraviolet ray equipment which has recently been used to kill germs in the air of hospital operating rooms and nurseries.

Science News Letter, April 5, 1941

PSYCHIATRY

Simple Drugs Are Often To Blame for Mental Ills

SIMPLE remedies that you can buy at the corner drug store—bromides and barbiturates — are more often to blame for mental disease than are heroin, opium or even morphine.

This fact, which will come as a surprise to most people, is revealed by Dr. Merrill Moore, poet and physician who, with Dr. M. G. Gray, has made a study of 124 drug addict-psychotic patients treated in Boston Psychopathic Hospital over a period of 12 years.

Heading the list of drugs taken by the addicts were the bromides. Altogether 42 patients were addicted to this sedative. Next came the barbiturates—39

persons had been taking these sleeping drugs. Then morphine with 26 addicts. Some took a common headache pill. One was addicted to turpentine.

Most of the patients used the drugs as self-medication. They were sleepless, nervous, or in pain. They were depressed, or had sexual, marital or financial difficulties. A few were exposed by their occupation, as in the case of men who were rubber workers and suffering from lead poisoning.

It is not well understood why only a few persons using these drugs develop mental disease, these physicians said. (*Journal of Criminal Psychopathology*.) In some cases it seems due to individual peculiarities. They urge a further study of the psychological make-up of the patients who develop drug addiction and intoxication.

The problem of drug psychoses is, they conclude, relatively unimportant compared to that of the mental diseases arising from alcoholism. The number of cases of alcoholic psychoses in this same period studied was eight times as great as the drug psychoses. And a great many of those suffering from drug psychoses also took alcohol in excess combined with their drug or drugs.

Science News Letter, April 5, 1941

RADIO

Radio Direction Finder Made For Small Boats

MORE small boats this year will be able to find their way home in fog if they are provided with a new inexpensive radio direction finder, that tells within a degree the bearing of marine beacon stations. The entire device weighs 17 pounds, and is complete with batteries and headphones. (*Ansley Radio Corp.*, N. Y. C.)

Science News Letter, April 5, 1941

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