

disturbances.

Glaucoma is the most serious eye problem of middle age, with cataract next most important, Dr. Edwin B. Dunphy of Boston stated at the meeting. Early symptoms of cataract are often confused with those of glaucoma.

Less serious but "the most annoying and most universal inconvenience of middle

age" is the condition laymen call farsightedness. Presbyopia is the medical name for the condition. In this condition the eye loses some of its ability to accommodate itself to different focal distances and light intensities. The condition, Dr. Dunphy said, is due more to lack of elasticity of the eye lens than to weakness of the muscle which contracts the lens.

Science News Letter, March 26, 1949

BACTERIOLOGY

Germ Warfare Antidotes

We have ways of defending ourselves against biological warfare, Defense Secretary Forrestal assures, but not against the atom bomb.

➤ YOU NEED not be as afraid of germ warfare as of atom bombs. This conclusion may be drawn from the statements on germ, or biological, warfare by Secretary of Defense James Forrestal and Maj. Gen. Alden H. Waitt, chief of the Army Chemical Corps which carries on our biological warfare research.

Both said that germs or their poisons could be used as military weapons. But both were reassuring in their statements that we have ways of defending ourselves against such weapons. So far, no one has been quite that optimistic about defense against the atom bomb.

"It should be appreciated," Secretary Forrestal said, "that illness induced by biological agents may be counteracted by specific medical measures."

The toxin produced by botulinus germs is probably the most poisonous known substance per unit of weight. This is the stuff an ounce of which would be enough to kill about 200,000,000 people, though practically it would be impossible to spread it in such a way as to get it into that many people. But we have developed a toxoid

that protects against this most poisonous substance.

Anthrax germs produce a substance almost as poisonous as the botulinus toxin. Our biological warfare scientists worked on this problem, too, during the war. They found that penicillin was an effective remedy against one form of anthrax. Whether it will remedy all forms has not yet been reported.

Plague has always been mentioned as a possible germ weapon in war. One of the first reports released by the Navy on its biological warfare activities during the war suggested, without actually stating, that Navy scientists had developed defenses against this disease. Since then, civilian scientists have found a remedy for the disease in streptomycin.

Penicillin and streptomycin, with newer antibiotics such as chloromycetin and aureomycin and various sulfa drugs, give us powerful remedies for a host of germ diseases.

Germ warfare might be waged against animals and plants that man needs for food. In these fields, also, our scientists

built notable defenses. Vaccines were developed against the cattle plague, rinderpest, and against two highly fatal poultry maladies, Newcastle disease and fowl plague.

Less spectacular but important for defense against germ warfare is the development of quick, sure tests for various disease germs. That this has not been neglected may be guessed from Secretary Forrestal's statement that "an important defense against biological warfare lies in the early identification of diseases implanted."

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