

PUBLIC HEALTH

# Saves Manpower

Daily doses of sulfadiazine have cut down rheumatic fever, pneumonia, scarlet fever and sore throats for soldiers and sailors.

➤ HOW SMALL daily doses of sulfadiazine protected soldiers and sailors from rheumatic fever, pneumonia, scarlet fever and streptococcus sore throats, with an enormous saving in effective manpower and money, was reported by Col. W. Paul Holbrook, of the Office of the Air Surgeon, and Comdr. Alvin F. Coburn, of the Navy's Medical Corps, at the meeting of the American Medical Association.

"Our army of 7,000,000 troops spent in excess of 14,000,000 days in the hospital last year because of common respiratory diseases," Col. Holbrook stated. "In addition to this time, there were the inevitable number of complications and deaths as well as additional millions of man-days lost from duty. If our experience with sulfadiazine prophylaxis holds true, it is a conservative estimate that 50 to 75% of this tremendous loss could be prevented."

At a single Naval Training Station, Comdr. Coburn reported, it is estimated that the liability for just four respiratory infections, scarlet fever, rheumatic fever,

pneumonia and tonsillitis or pharyngitis, was 1,671,171 man-days and \$15,000,000 in salaries and pensions for disabilities. The figure for man-days covers 557,057 days lost by the patients plus the time of the two well persons whose services are required to care for each man on the sick list.

Part of the Navy's long term program for controlling streptococcal infections now is mass prophylaxis with sulfadiazine. Prophylactic doses of this drug, he reported, have been given continuously to 250,000 Naval trainees between December, 1943, and April of this year. A small dose, one gram daily, is adequate, he reported, to check a well-advanced streptococcus outbreak, to check a streptococcus outbreak at its onset, and to protect 85% of susceptible recruits from implantation with bacteria that cause disease of the nose, throat and lungs, with their often disabling results such as the heart damage that follows rheumatic fever. This last, though not usually considered a respiratory disease, in most cases follows streptococcus infection.

The only untoward effects of the mass sulfadiazine prophylaxis, Comdr. Coburn said, were quickly-disappearing rashes in about four out of every thousand and dangerous constitutional disturbances in one out of 100,000.

He emphasized the fact that while a short course of sulfadiazine prophylaxis checks an outbreak of meningitis, for prophylaxis against streptococcus infections the sulfadiazine must be given every day continuously.

Among recruits with a high occurrence of infection, the sulfadiazine prophylaxis was estimated to save 343 man-days per 1,000 per week, Comdr. Coburn reported to the meeting.

At one recruit camp with a complete turnover of personnel every four to six weeks, half the men were given sulfadiazine prophylaxis during the investigations of its effects and the other half was not. Sick call visits for respiratory symptoms among the untreated group were twice that in the treated group. Respiratory sickness requiring bed care in the untreated group was about three times that in the treated group. Infections probably caused by streptococci in the untreated group were 11 times that in the treated, and frank (or definite) streptococcus infection in the untreated was 24 times that in the treated.

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AERONAUTICS

## Bomb-Like Gun Package Now Attached to Planes

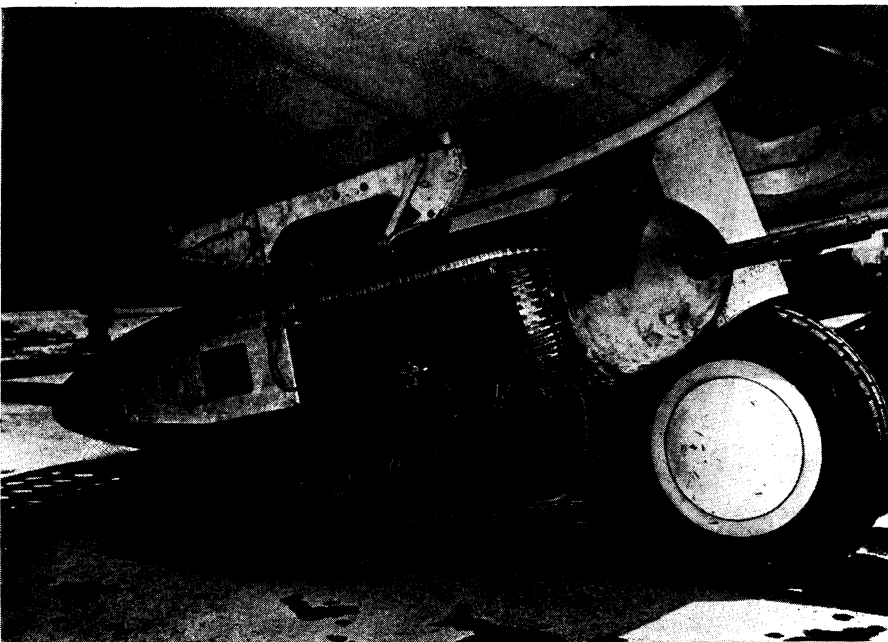
➤ A NEW self-contained machine gun package that is hooked on under the wings of a plane like an ordinary gasoline tank is the latest secret weapon to be revealed by the U. S. Navy.

The gun packages are longer and more cigar shaped than a 2,000 pound blockbuster. They weigh more than 350 pounds each. The main reason for using these guns is to increase the fire power of planes.

The new units are attached to the under part of the wing by sway-braces, the same as are used for bombs, so that the plane may carry bombs, auxiliary gasoline tanks, or the new machine gun packages without substantial alteration.

Although the new gun packages are not intended to be dropped after the fire power is exhausted, as in the case of detachable gas tanks, they may be jettisoned, or dropped, like gas tanks in an emergency when a quick get-away is necessary.

Details of the caliber of the gun and



**PACKAGE GUN**—This machine gun is attached to the underside of the wings of Navy warplanes for added firepower.