

by Dr. J. R. Lindsay of Chicago at the meeting of the American Academy of Ophthalmology and Otolaryngology.

Tyrothricin is the crude substance isolated by Dr. Rene Dubos, at the Rockefeller Institute, and contains two crystalline substances, gramicidin and tyrocidine. Gramicidin has been hailed as an important new chemical remedy for diseases caused by germs of the gram negative group. Dr. Lindsay's experience with the parent substance, tyrothricin, shows one group of infections for which it is ineffective. Tyrothricin cannot be given by injection, because it must be kept out of the blood stream since it separates hemoglobin from the red blood cells. So Dr. Lindsay used it in the nose, throat and sinuses by spraying, swabbing and dropping.

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## See Ear Drum Movements

► THE ACOUSTIC movements of the human ear drum have been seen and photographed for the first time. Moving pictures showing these movements of normal ears and also of ears of patients suffering from deafness were shown by Dr. H. G. Kobrak, of Gary, Ind., and Dr. J. R. Lindsay and Dr. H. B. Perlman, of Chicago, at the meeting of the Ameri-



**SUBMARINE VICTIM**—This California Murre died while crawling away from the breakers. You can see blobs of thick grease on the bird as well as on the sand.

can Academy of Ophthalmology and Otolaryngology in Chicago.

Fresh specimens from human cadavers were used. The various parts of the sound conduction apparatus were exposed and the vibrations during the con-

duction of sound were photographed.

"On stroboscopic illumination," the doctors pointed out, "one sees the acoustic vibrations of the ear as distinct and slow movements."

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### MEDICINE

## Try Immune Serum

In case an influenza epidemic comes this winter, the blood of persons who have just had the 'flu should "be considered" for protection.

► IF AN influenza epidemic strikes this winter, the use of immune serum from the blood of the first patients attacked "should be considered" for treatment and prevention and for further studies of influenza prevention, Dr. Joseph Stokes, Jr., of the University of Pennsylvania School of Medicine, declared at the meeting of the Medical Society of the District of Columbia.

Dr. Stokes' cautiously worded advice to his fellow physicians was based on extensive experiments with mice in which relatively small amounts of immune serum protected mice against influenza virus when the protective serum was inhaled by the mice. Somewhat larger amounts of the immune serum were required when the serum was injected. In treatment of the mice, the immune serum had to be given within six hours after infection with influenza virus.

Immune serum, from the blood of persons who have just had influenza, contains substances called antibodies which are defensive forces of the body for fighting off the 'flu virus. Instead of borrowing these defensive forces from someone who has already had the disease, it is possible to build them up in a per-

son's own blood by vaccination with influenza virus. Such a vaccine, Dr. Stokes recently reported, protected 43 out of 44 boys who were directly exposed to influenza virus in an experimental study.

Third method of protection against influenza epidemics described by Dr. Stokes consists in sterilizing the air of hospital wards, school rooms, barracks or similar places where large numbers of people congregate. This sterilization may be done by ultraviolet rays or by spraying propylene glycol vapor into the room. In the studies Dr. Stokes reported, the propylene glycol vapor seemed somewhat more effective than the ultraviolet rays.

Neither of these air sterilization methods, however, can be entirely relied on to stop an influenza pandemic such as swept the world in 1918. The reason, Dr. Stokes explained, is that in pandemics, the travel of the virus through the air may not be the chief manner in which the disease is spread. In pandemics, the disease breaks out suddenly in many widely separated places at the same time. Virus spread through the air is more a factor in epidemics such as those of recent years which travelled across this country in a few weeks.

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### ORNITHOLOGY

## Birds U-Boat Victims

► U-BOATS CLAIM thousands of victims never mentioned in the tragic lists of "missing at sea." They are aquatic birds—ducks, gulls and many others—that get their feathers soaked in oil set afloat from torpedoed ships (sometimes, too, from the fuel tanks of submarines destroyed in combat) and either sink from exhaustion or struggle ashore only to die in misery.

This distressing picture of suffering

among war's innocents is presented by Roger T. Peterson of the National Audubon Society (*Audubon Magazine*).

Normally, swimming birds' feathers, filmed with the birds' own natural body oil, keep their bodies warm and dry, no matter how cold the water they swim and dive in. But contact with mineral oil breaks this natural protection. Cold water reaches their skins, and if they do not die of chill and exhaustion, pneu-