



**FLU FIGHTER**—Here a laboratory technician removes the virus-laden fluids from partially incubated chick eggs by suction in the laboratories of Pitman-Moore Co. This firm and Sharp and Dohme, Lederle, Squibb, Lilly and Parke-Davis manufactured vaccine for the Army and are now producing it for civilian use.

Disinfecting the air in public buildings and even homes with ultraviolet light or with invisible mists of germ-killing chemicals may be added to vaccination as a means of protection against influenza. While going to the doctor for a "shot" of vaccine would be simpler, the air disinfection method has the advantage of giving protection against other diseases than influenza.

Still needed in the almost Thirty Years War against influenza is a chemical remedy like the sulfa drugs or an

antibiotic like penicillin for treatment of patients. If the virus of the 1918 pandemic is ever again loosed on the world, the present vaccine probably would not be effective. The vaccine is specific for only two known influenza viruses. Sulfa drugs and penicillin and streptomycin, on the other hand, are effective against various strains or types of streptococci. A remedy effective in one influenza virus type might therefore be expected to remedy infection with any type of 'flu virus.

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#### ELECTRONICS

## Aerial Counterspies

Special electronically equipped aircraft known as Ferrets hunted out enemy secret radar installations for Allied jamming or destruction.

► SPECIAL AIRCRAFT, known as "Ferrets", packed full of electronic equipment, served during the war as aerial counterspies in ferreting out the enemy's most closely guarded radar secrets. Details of their equipment and activities were revealed by Headquarters, Air Technical Service Command.

Flying over enemy territory, these spe-

cial radar countermeasures laboratories sought out enemy radar stations and analyzed their signals to determine what radar devices could later be used to make them ineffective by jamming. In other cases, the sites of the enemy radar were located and later the installations were bombed out of existence. If enemy stations were difficult to reach, information

was obtained relative to their blind spots, so that Allied craft could approach enemy territory with lessened danger of detection.

The Ferret carried equipment which not only received and recorded enemy radar signals but analyzed them for rate, size and shape of pulse, determined their frequency, and established the geographic location of the radar. Some 15 different electronic devices were carried by them, included with their special equipment that weighed about a ton.

Twenty-three Ferrets were in use at the end of the war. The first saw duty in January, 1943, when it flew a mission in the Aleutians to locate Japanese radars and determine the zone of their coverage. Only one was located, and it was found that certain areas were protected from its beams. It was in these areas that future aerial raids made approaches to the islands, surprising the Japs every time.

Two other Ferrets, outfitted in the spring of 1943, were used in the Mediterranean area in preparation for the Sicilian invasion in July. Enemy radars were located and effectively jammed by countermeasures devices. This was the first time that jamming was used in a major military operation. The production of Ferrets followed rapidly the successes of these two and they played an important role in both the European and the Pacific war zones.

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#### PHYSICS

## Electrical Computer Solves Equations

► AN ELECTRICAL method of solving some mathematical equations that is four to seven times faster than conventional methods was announced to the American Physical Society in Los Angeles by Dr. Clifford E. Berry of the Consolidated Engineering Corporation of Pasadena, Calif.

The new computer used for solving linear simultaneous equations consists of an electrical circuit containing pairs of potentiometers. As those who have studied advanced mathematics know, the usual method of solving such equations involve a laborious cut-and-try method of assuming values and solving for one unknown and then for others. In the electrical method of solving the equations, different voltages are used to perform the necessary operations, and the computer used does not introduce significant errors.

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