

AERONAUTICS

Long-Range Work Plane Can Use "Short" Runway

► A HIGH-FLYING, more economical work plane has been created at Lockheed Aircraft Corporation to give the Air Force a long-range personnel and cargo carrier that can take off and land on "short" runways.

Powered by four turbo-prop engines, the plane is designed to fly assault and ground-support missions. Performance details of the C-130, as it is called, are secret, but it is said to "fly faster and higher than any current military transport."

Prototypes now are being built at Lockheed's factory at Burbank, Calif.

Science News Letter, March 7, 1953

INVENTION

False Wall Helps Polio Patients in Rocking Bed

► TO MAKE it easier for polio-stricken patients to read in rocking beds sometimes used in place of iron lungs, a North Carolina inventor has attached a false wall to the end of the bed. The wall comes complete with wallpaper and hung pictures.

H. A. Doll, an employee of Bell Telephone Laboratories, Burlington, N. C., reports his invention seems to work fine. The false wall, which goes up and down as the bed rocks, eliminates the distraction caused otherwise by the regular room wall which appears to the rocking patient to oscillate up and down while he reads.

Science News Letter, March 7, 1953

MEDICINE

New Penicillin Fights Both Boils and Typhoid

► DISCOVERY OF a new type of penicillin was announced by Drs. E. P. Abraham, G. G. F. Newton, K. Crawford and H. S. Burton of the University of Oxford, and Dr. C. W. Hale of the Medical Research Council's Antibiotics Station at Clevedon, England.

The new type of penicillin is called Cephalosporin N. It is one of two antibacterial substances produced by a fungus of the species *Cephalosporium*.

Cephalosporin N differs from common penicillins in its water-absorbing character and in its antibacterial activity. For example, it is equally active against a strain of *Staphylococcus aureus*, the germs that cause boils, and against a quite different germ, *Salmonella typhi*, that cause typhoid fever. But benzylpenicillin is more than 100 times as active against the staphylococcus germs as against the typhoid germs.

The new type of penicillin, reported in *Nature* (Feb. 21), may be the same as a previously reported antibiotic synnematin, produced by other members of the *Cephalosporium* family.

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NEW ASSAULT FREIGHTER—A scale model of the first U. S. turbo-prop transport, to be used for assault and ground support missions by the U. S. Air Force, is shown in the photograph.

MEDICINE

Foundation Buys Globulin

► WORRIES OVER a black market in gamma globulin for preventing polio paralysis next summer can be set at rest. The gamma globulin which supposedly was being bought and hoarded by some doctors for use next summer was reported to be coming from commercial supplies.

Now it is announced that the National Foundation for Infantile Paralysis will buy all the gamma globulin now on hand and being produced through June 30, 1954, by five of the nation's leading pharmaceutical houses. This presumably will take the entire commercial supply, leaving none for black marketing.

The purchase, for which \$11,000,000 will be spent, is not just to stop any black market operations. Commercially produced gamma globulin may or may not contain antibodies to all three polio viruses. It has not been tested for this and authorities doubt that it does since it is made from relatively small pools of blood. Gamma globulin from blood donated to the American Red Cross comes from large pools, has been tested and does contain antibodies to all three polio viruses.

Commercially produced gamma globulin, however, does contain anti-measles antibodies. So, even if tests now planned show it ineffective against polio, it can be used against measles, leaving all the effective anti-polio gamma globulin for polio protection. This commercial supply, purchased

by the National Foundation, will be turned over to the Office of Defense Mobilization for allocation.

Meanwhile, the Red Cross has turned over to the Office of Defense Mobilization enough gamma globulin for 245,000 average polio shots. ODM will distribute the material nationally for use this summer to aid in prevention of paralysis from poliomyelitis.

The Red Cross will continue to turn over to ODM all supplies of gamma globulin as they come from the processing laboratories. The Red Cross is collecting the blood and paying for fractionation, processing into gamma globulin and packaging.

If doctors throughout the nation are, as reported, buying up available supplies of gamma globulin to hoard for black market sales later, the American Medical Association would take action.

Dr. Louis H. Bauer of Hempstead, Long Island, A.M.A. president, told SCIENCE SERVICE such a situation would be "disgraceful" and if true, he "would thoroughly disapprove of it."

Neither he nor A.M.A. headquarters in Chicago, however, had heard of such a situation.

Science News Letter, March 7, 1953

It now seems highly probable that the population of the U. S. will increase by 50% in the next 50 years.