

arrange to use the existing resources of the community for his treatment and rehabilitation. Representatives of Alcoholics Anonymous and the Salvation Army and a legal consultant will be on call for assistance.

Serious as the problem of alcoholism is today, it is feared that after the war

it will become much worse. It is hoped, therefore, that the clinics may serve as experimental models for similar ones to be set up in other states. Opening of the clinics in this state at the present time is assisted by a large contribution to the Connecticut Prison Association from an anonymous Hartford donor.

Science News Letter, January 15, 1944

GENERAL SCIENCE

War Use of Scientists

Separate selective service for specialized personnel urged upon Congress by head of government's war research as aid to applying science to war.

► SCIENTIFIC men should have their own selective service system, in order to place them in war service exactly where needed, Dr. Vannevar Bush, director of the Office of Scientific Research and Development, recommends in a letter to Senator H. M. Kilgore (Dem., W. Va.). (*Science*, Dec. 31, 1943)

"The prosecution of modern war requires the treatment of scientific men as a special group to be specially allocated for work in the fighting services and in civilian research, and this cannot be done adequately under the present procedures of the Selective Service System," Dr. Bush says. "There is no question here of shielding a special class against the rigors of war. It is rather the question of the intelligent use of a great nation's asset. The young men who make up this group should be under orders to serve where needed and, if the public interest indicates that they should remain in the laboratory rather than serve in the field, they should be retained in the laboratory. Likewise, when they are needed in the field they should be transferred there under orders to share the combat hazards with the members of the Armed Services in performing their duties."

In his comment inspired by one of the provisions of the Kilgore bill (S. 702), Dr. Bush makes it clear that progress has been made in placing scientists where they serve most effectively, but that he believes Congress should act to give legislative authority for special procedures for the scientists.

The so-called war mobilization of science by creation of an over-all administration would interfere with the effective prosecution of the war, Dr. Bush contends, while the proposed requisitioning power covering scientific facilities is

not needed in his opinion. The bill's patent and inventions changes should not be made during wartime, Dr. Bush says, because they would be a source of confusion and dissatisfaction.

Necessary wartime controls over scientific research should not be perpetuated in peace because, Dr. Bush declared, "science flourishes to the greatest degree when it is most free."

The patent policy of the Office of Scientific Research and Development, the government's war research agency headed by Dr. Bush, which provides for government shop rights on inventions developed under contracts with research laboratories, which receive the commercial rights, will not work in time of peace, he believes, because the laboratories would not desire to work on a non-profit basis then, and it would be undesirable to limit unduly the competition in our industrial system.

Dr. Bush urged that the Congress take advantage of the expert advice that scientific men would be just as willing to give our law-makers as they would our government bureaus.

Because many universities and non-profit research institutions will be unable to finance research after the war from private sources, Dr. Bush suggests that it may be necessary for them to look to federal and state governments for financial support.

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PALEOBOTANY

Texas Climate Once Like That of Great Lakes Area

► TEXAS once had a climate resembling that of the Great Lakes region, if the testimony of pollen grains found deep in

a bog near Austin can be accepted.

Dr. J. E. Potzger of Butler University and Prof. B. C. Tharp of the University of Texas tell how they have found, in muck hauled up from around the 20-foot level in Patschke bog, a short distance east of the city, large numbers of Canadian spruce and fir pollen grains. (*Science*, Dec. 31, 1943) These trees now grow at lower altitudes only in the northern states. Even bog deposits of their pollen have not been previously reported from nearer than Bacon's swamp, Ind., about 800 miles to the north.

In the Patschke bog also were found

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masses of chestnut pollen grains, which have not previously been reported from less than 100 miles to the east of the bog. These were not from the same depth as the conifer pollens, but came from nearer the surface, especially at

the eight- and six-foot levels. This former chestnut forest, therefore, flourished at a later date than the very ancient conifer forest represented by the spruce-fir pollens.

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was not used this close to the battle field but was used at the forward base hospitals.

For flesh wounds, the preferred method, apparently, was to inject a solution of the calcium salt of penicillin through small rubber tubes. These were inserted into the wound after it had been surgically cleaned and decaying tissues cut away. Surgeons who do this preliminary job at the casualty clearing stations were warned not to cut away any more skin than absolutely necessary, so that the wounds can be sewed up after the penicillin application.

Wounds closed after this treatment may, after eight to 12 days, be found bathed in pink or green pus, but when this is wiped away, the wounds are seen to be clean and free from swelling or redness. Of 170 flesh wounds treated in this way at Tripoli and Sousse, most of them only three to seven days old when closed, only seven had to be classed as failures and those occurred early in the investigation before the technic had been fully worked out.

In case of gas gangrene, compound fractures and head and brain wounds, good results were also obtained.

MEDICINE

Penicillin on Battlefield

Germ-fighting chemical proves itself of immense value in the control of infection in war wounds of armed forces in Sicily and North Africa.

► PENICILLIN, the powerful germ-fighter from mold, has proved itself on the field of battle, it appears from enthusiastic reports of its use in treating war wounded in Sicily and North Africa now reaching the United States. The reports in the *British Medical Journal* (Dec. 11, 1943), and the *Lancet* (Dec. 11, 1943), another leading British medical publication, cover a special three-months investigation made by Prof. H. W. Florey, of Oxford University, Brig. Hugh Cairns and other medical officers in the British Army.

"There can be little doubt that the preventions of infection with pyogenic cocci (pus-forming germs) or its control in war wounds is within reach," the *British Medical Journal* account states in quotation, apparently, from the report to the War Office and Medical Research Council. This formal report is said to be for official circulation only, corresponding apparently to a "restricted" report in the United States.

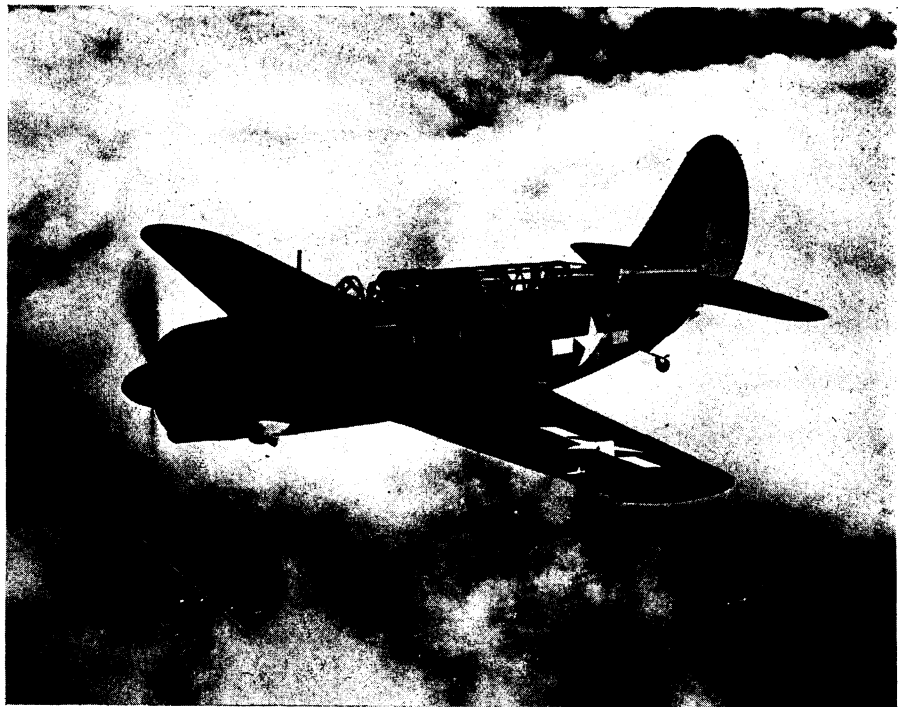
For the first time, the editor of the *Lancet* points out, surgeons can now sew up a gunshot wound without fear of dangerous spread of infection to the blood stream. Heretofore it has been considered necessary to leave infected wounds open until all pus had drained out. The change means not only a saving of life and limb but also of valuable fighting man-hours, dressings, hospital service, equipment and transport services.

Wounds treated with penicillin healed from three to six weeks faster than otherwise, the experienced war surgeons who shared in the investigation agreed.

A way to save precious supplies of penicillin was also found by Prof. Florey and his colleagues. By applying penicillin directly to the wound as early as possible, they found, much smaller quantities are required to check infection than when the drug is given by injection into

muscles or veins after the wounded man has reached the base hospital with a well-developed infection. If penicillin were plentiful, however, the surgeons would prefer giving it by injection in nearly all cases since by this method the drug would be carried by the blood stream to all living tissues and prevent multiplication of germs in them.

In some cases a powder of penicillin and a sulfa drug was dusted into the wound at the casualty clearing station. For the most part, however, penicillin



HELLDIVER—This low-mid-wing monoplane, the latest of the Curtiss-Wright Helldiver series, proved its value in the attack against the Japanese stronghold at Rabaul in November. It was designed to carry a greater bomb load faster and farther than any similar aircraft type in the world. The bomb load is housed entirely within the belly of the fuselage, making the lines of the fuselage as aerodynamically clean as possible.