



Bible Plants

PLANTS mentioned in the Bible are harder to identify with real certainty than might be imagined from the confident way names are tossed about in the various translations. Many such names were applied by early translators who never saw the Holy Land, innocently imagined its vegetation to be like that of England and Western Europe, and consequently misapplied a considerable number of European plant names, like box, sycamore, holm (holly), and elm, states Dr. Harold N. Moldenke of the New York Botanical Garden, in a recently published study, Plants of the Bible. (Reviewed, SNL, this issue.)

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People began writing books about the botany of Palestine in 1568, but only in comparatively recent years have botanists actually gone there to make critical studies of plants now growing in the country. Even that, however, does not fully solve the problem, for in the many centuries since the books of the Bible began to be written there have been numerous newcomers among the plants in the Bible land (even including such New World species as prickly-pear cactus and black locust), and there have also been many disappearances, due to the centuries of abuse of the land by stripping away of forests, unwise plowing of hillsides, and over-grazing. The ancient prophecies have been tragically fulfilled: "Upon the land of my people shall come up thorns and briers; yea, upon all the houses of joy in the joyous city. . . . The thorn and the thistle shall come upon their altars."

There can be no doubt about the identity of some of the plants mentioned over and over again in the Bible: palm and olive, vine and fig tree, the mighty cedars of Lebanon and the cypresses that grew in the same place. Doubt has been cleared up on some species that were so uncertain when the Bible was translated into English that their names were then left in Hebrew. It is considered quite probable, for example, that the "gopher' wood of Noah's Ark was juniper, and it is established as practically certain that the Ark of the Covenant, together with the "staves" of its Tabernacle, were made of acacia wood. Yet it has proven impossible to state positively just what the Biblical hyssop was, or to determine which of many thorny bushes was robbed of its twigs when the Roman soldiers plaited the crown of thorns for Christ.

Science News Letter, November 23, 1940

PSYCHIATRY

# Men Up for Army Training Will Have Psychiatric Examination

HEN men selected for Army training come before the induction boards, they will be examined by a psychiatrist to determine whether they have any mental or emotional disorders which would make them unsuitable for military training and service, Dr. Harry A. Steckel, director of the Syracuse, N. Y., Psychopathic Hospital and chairman of the military mobilization committee of the American Psychiatric Association, reported to the National Committee for Mental Hygiene meeting in New York.

To do this job, one psychiatrist for every 50 men per day to be examined will be a required complement of the medical forces at the induction centers, Army officials and psychiatrists finally agreed.

"This, we feel, represents a real concession and should prove of invaluable service in eliminating undesirable recruits," Dr. Steckel stated in his report, which was read by Dr. Ira S. Wile, of New York City.

Psychiatrists of Army age may not be available in sufficient numbers for active Army duty, an American Psychiatric Association survey revealed, but many psychiatrists were found available for so-called home service who could be utilized on a civilian basis at the induction centers. The Army, it was estimated

in 1939 before the survey, would need at least one psychiatrist for every 5,000 troops and the Navy would require a minimum of 150 trained psychiatrists. At the time of the survey, comparatively few well-trained psychiatrists were already in the Army.

Chief objection of Army and Selective Service officials to attempts to screen out psychiatrically undesirable recruits was the amount of time which it was believed would be required for the necessary examinations.

A form for a brief psychiatric exami-

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nation, to consume not more than 15 minutes, was worked out by the American Psychiatric Association, for use by the Army in eliminating psychiatric risks. This, apparently, has not yet been accepted.

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#### Mental Disorders Common

ENTAL and nervous disorders have been prominent among the disabilities that have occurred among the Canadian armed forces, Dr. C. M. Hincks, general director of Canada's National Committee for Mental Hygiene, reported.

Deaths have been few and the general health of the troops has been good, he said, but there have been more than 1,000 cases of mental and nervous disorders, of which 156 were major mental diseases.

Almost one-third, 30%, of the men recently invalided home from Britain have been afflicted with these disabilities, and an additional one-fourth had duodenal ulcer, a condition frequently associated with emotional disturbances and tensions, Dr. Hincks declared.

Insufficient psychiatric and psychologic testing and care is given to Canadian troops, Dr. Hincks' report suggests, with the exception of one division of the Air Force.

Brain-wave studies have proved useful here, he reported, in detecting persons who have never had epileptic seizures but who have convulsions under conditions of low pressure, similar to high altitude flying. Relationships between shallow breathing and emotional instability are being investigated by the Division of Medical Aviation Research.

The war of nerves has made few inroads on the Canadian people as a whole, Dr. Hincks reported.

"We are remarkably free from feelings of anxiety, apprehension or defeatism.

"This has been due in part to the fostering of confidence and will to win on the part of the press, radio, screen and church, and, in part, to the circumstance that everybody is working in the common cause. This constitutes effective occupational therapy in diverting attention from the tragedies and uncertainties of the war itself, and in strengthening morale."

Science News Letter, November 23, 1940

PHYSICS

# Radium Substitute May Show Defects in Airplane Parts

## Radiation from Yttrium Can Be Used To Photograph Through Two Inches of Iron; Has Long Life

\*\*RAY photographs of parts of airplanes and other machines important for defense, to reveal any hidden defects and now made with radium, may soon be made with an artificially produced radium substitute, radioactive yttrium, prepared in the laboratory by bombarding strontium with atomic bullets from a cyclotron.

Dr. Charles Pecher, Belgian physicist, now working in the William H. Crocker Radiation Laboratory of the University of California, announces the separation of this material. (*Physical Review*, Nov. 1.)

Dr. Pecher was interested in making the element strontium radioactive for biological investigations. This was done by bombarding strontium samples with 16-million-volt deuterons from the cyclotron. Some of the strontium atoms are converted into a form of another element. yttrium, which also has properties like radium, and which lasts for about 100 days, much longer than most of the artificially radioactive substances. Already, he says, enough has been obtained to be equivalent to about 25 milligrams of radium.

Photographs made through two inches of iron show that the yttrium can be used industrially for photographs of the inside of machinery.

"Because of its long life and penetrating gamma-radiation," writes Dr. Pecher, "this radioactive yttrium is, among the artificial radioactive elements known at the present time, the most likely to be substituted for radium, but it must be considered at the present time merely as a by-product of the radio-strontium preparation as it is, as yet, appreciably more expensive than radium for a like dose of gamma-radiation."

Science News Letter, November 23, 1940



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