

SCIENCE NEWS

(*Science Service, Washington, D. C.*)

EROSION IN PALESTINE

PALESTINE, traditionally a land of milk and honey, has been turned into a land of stones and poverty largely by bad farming, which permitted erosion to ruin its soil, according to an address by Dr. W. C. Lowdermilk, assistant chief of the U. S. Soil Conservation Service. Dr. Lowdermilk recently returned from a long study trip into the lands of old cultivation, of North Africa and the Near East.

A typical scene which he depicted is a once-fertile hillside area on the road from Beersheba to Jerusalem. The soil is now washed off the slopes to bare rock and lodged in the valleys, Dr. Lowdermilk pointed out, and he continued: "There soil material has been sorted by storm waters each winter; the fine and fertile particles have been swept out to sea to change the beautiful blue of the Mediterranean to a dirty brown. The coarser material is spread out on former alluvium, where it is still available for cultivation. But more than this, the flashy run-off from the heavy winter rains on the bared slopes gullies the alluvium. The area of useful land has been progressively reduced."

The ruin that ignorant, greedy or poverty-desperate farming brought to the soil has been clinched and deepened throughout the Mediterranean region by the cutting hooves and close-shearing teeth of the ubiquitous flocks of goats, that bite off and trample down every hopeful scrap of vegetation that might otherwise check the millennial erosion.

European agronomists living in the now arid regions are coming to a realization that considerable parts of the North African desert may have been man-made. Where now are only waste lands and ruined ancient cities, there were once great farms and groves that exported wheat and olive oil to Rome, and large and thriving populations. Dr. Lowdermilk told of one French scientist in Algeria, who had come to question whether any great change in climate has occurred there since Roman times. He planted some young olive trees on a hill, watered them through their infancy, and then left them to take care of themselves. They are still alive and bearing good crops of olives, as their ancestors on the same hills did for Imperial Rome.

Summing up, Dr. Lowdermilk urged that land be considered "not as an economic commodity but as an integral part of the corporate existence of a nation as its people are."

POLARIZED LIGHTS FOR AUTOMOBILES

(*Copyright, 1940, by Science Service*)

How the automobile industry might solve the problem of introducing polarized headlights to eliminate night-driving glare was described at the meeting of the Society of Automotive Engineers in Detroit by P. J. Kent, chief electrical engineer of the Chrysler Corporation.

An agreement among manufacturers to install polarized lights on new cars after a given date would be the initial step. At the same time demountable polarizing screens

for old car windshields could be made available to allow the beneficial polarizing, glare-eliminating effect for them also.

However, Mr. Kent pointed out, it would probably also be necessary to have new cars equipped, for a few years at least, with a standard beam-depressing switch so that their strong headlight rays could be lowered in meeting old-type cars. This depression of the beam would be needed until the old cars came to a lingering death and the end of their usefulness. Polarizing screens on headlights and windshields would be "crossed" so that the polarized light rays could be extinguished and glare eliminated.

Still debatable, said Mr. Kent, is the question of whether headlight intensity would have to be stepped up with the introduction of polarized beams. The polarizing screens cut the light intensity emitted by the headlight some 60 per cent., he pointed out. It has been suggested that brighter headlights could overcome this absorption and also surmount the additional absorption of 60 per cent. encountered in the windshield screens.

The engineering problems involved in the switchover to polarized headlights are major ones and require considerable testing before they can possibly be applied to all automobiles. The problem is by no means as simple as the introduction of safety glass in cars, for polarizing the headlight beams can only gain its effectiveness if all cars possess the new invention. The benefits of safety glass, in contrast, were real and tangible immediately on its installation in any single car without respect to others.

THE SPREAD OF INFANTILE PARALYSIS

(*Copyright, 1940, by Science Service*)

New leads on research in infantile paralysis make the eventual conquest of this disease seem excitingly near at hand. Research plans announced by Basil O'Connor, president of the National Foundation for Infantile Paralysis, show that investigators are following new trails in their search for ways of preventing the disease.

Saliva from mouths of infantile paralysis patients both before paralysis sets in and during the paralytic stage will be examined for the virus that causes the disease. The clue for this line of search comes from the recent discovery of the virus in sewage from localities that were gripped by infantile paralysis outbreaks. The virus was also discovered in the intestinal discharges of patients and of healthy persons who did not have infantile paralysis, but who had been in contact with patients. This proved the existence of healthy carriers of infantile paralysis, akin to the healthy carriers of typhoid fever.

How do the healthy carriers and the patients spread their germs to others? The saliva tests may give the answer to that question. Infantile paralysis, it is now believed, spreads more like diphtheria than like typhoid fever. In infantile paralysis, as in diphtheria, there must be direct contact with a patient or a healthy carrier of the germs. In typhoid fever, water or food may spread the germs, which are discharged from the body with its waste matter.