

conservation

U. S. Exceeds Soviet Plan

Russia's 15-year plan of conservation and land improvement has been more than matched in this country without need of an imposed, master-plan, expert says.

► RUSSIA'S ambitious program of soil conservation, irrigation and forest belt planting, to be carried out during the next 15 years, has already been more than matched in the United States, declares Dr. W. C. Lowdermilk, recently retired assistant director of the U. S. Soil Conservation Service. While not wishing to cast aspersions on the Soviet plans or to minimize their importance to the well-being of the Russian people, he considers it worth while to point out the record of accomplishment under the American system as a reply to the Kremlin's boast that a program such as theirs could not be put through under a capitalist economy.

Summarizing the recently published Soviet figures, Dr. Lowdermilk notes that their 15-year plan is to affect 300 million acres, with forest belts to be planted on 14 million acres, and 3,000 miles of long forest belts to protect cultivated land against winds blowing from desert areas. Grass and crop rotation systems are to be applied on 80 million collective farms, and 45 million reservoirs and ponds are to be constructed. Field-by-field conservation measures will be used on a total of 285 million acres.

Statistics of American land-use improvements which Dr. Lowdermilk has gathered from official sources do not exactly parallel the Russian figures, but many of the data are close enough to make comparisons interesting. There are, for example, 2,033 farm conservation districts, with a total of 1,114 million acres, of which more than 748 million acres lie within nearly four and one-half million farms and ranches. This movement is still spreading; 104 million acres in 207 new conservation districts were added in 1947.

Conservation surveys have been completed on farms with a total of more than 268 million acres, active plans for conservation are affecting nearly 158 million acres of farm and ranch lands, and conservation measures are being applied on 76 million acres. Wind and water erosion are being reduced by crop-residue management on well over 21 million acres, and by strip cropping on four million acres; 523,143 miles of terraces have been constructed. Range and pasture improvement methods have been put into use on nearly 47 million acres.

U. S. National Forests now cover 179 million acres; individual farmers are practicing woodland management on well over seven million acres of their own land. The U. S. Department of Agriculture has

planted 33,650 miles of field windbreaks in the West, in addition to an unknown amount of planting by farmers on their own initiative.

Some 21 million acres of previously desert land have been brought under irrigation, partly by the U. S. Reclamation Service, but partly also by private corporations.

All this has not been achieved under a single master-plan imposed from above, Dr. Lowdermilk points out. Rather, government action has been taken by executives and scientists who followed the wishes of the people as expressed through their duly elected legislators.

Some of the accomplishments, though already great, are of recent origin. Interestingly enough, the Tennessee Valley Authority is now just 15 years old. Longest record of accomplishments is that of the U. S. Reclamation Service, which began its work 46 years ago, in 1902, some 15 years before the unprogressive czarist regime was ended in Russia.

Reason enough exists, Dr. Lowdermilk admits, for the relatively late start of large-scale land-use improvement in the USSR. Practically nothing was done under the Czars, and Russia has in the present century had to bear the brunt of three major wars. Nevertheless, he feels, it would have been in better taste if the Soviet authorities had been content to announce their own praiseworthy plans, without adding the claim that such things cannot be done in a land where more than what they plan for the future already stands as a record of present achievement.

Dr. Lowdermilk's views will be given in full in the forthcoming issue of the national conservation journal, *THE LAND*.

Science News Letter, November 20, 1948

GEOLOGY

Geologists Ponder Over Dinosaur-Like Imprint

► DID A DINOSAUR lie down in the mud, near the present site of West Cox-sackie, N. Y., leaving the imprint of his scaly hide which was subsequently buried in silt and hardened into a permanent stony record? Or is there a less dramatic explanation for the marks?

At the meeting of the Geological Society of America in New York, Dr. George H. Chadwick, consulting geologist of Catskill, N. Y., called the attention of his colleagues to the peculiar "dinosaur leather" markings on a vertical rock surface by the roadside

about six feet wide and 30 feet long. He presented his observation as a challenge for investigation. It will be necessary to work fast, however, he said, since weathering will soon sponge out this puzzling record of the earth's dim past.

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ELECTRONICS

Electricity from Hair Sets Off Photo-Flash Tube

► THE CRACKLE of hair as combed by a girl has "electrical" value, a General Electric scientist said. The crackle is worth some 8,000 to 10,000 volts of potential electricity, he estimated.

The proof is that a GE photographer succeeded in making the crackle ionize a high-speed photo-tube, enabling a girl combing her hair to take a picture of herself engaged in the task.

In the method used, a metallic collector rod was attached to the comb employed. The rod was connected to the trigger electrodes of a photo-flash lamp. Each stroke of the girl's comb supplied the necessary 8,000 volts of power to set off the flash. The static electricity developed in combing the hair is low in comparison with that of scuffing the feet across a rug. In this latter case some 18,000 volts are generated, the scientist stated.

Science News Letter, November 20, 1948



"HAIR-POWER"—Each stroke with the comb generates 8,000 volts of potential electricity which in this picture was harnessed to the trigger of the photo-flash lamp. A single stroke through the hair set off the lamps, enabling the girl to take a picture of her friend and herself in this novel way.