



BUILDING

Workers for the National Park Service are erecting one of a series of sand fences designed to preserve the coast line from erosion by wind and water.

fence thus constructed. The fence is placed usually at right angles to the prevailing winds and the favored type of placement is in the reverse-curve, wavy line running down the beach. Soon sand has been deposited in a low mound until it covers the fence. Then the work is repeated by placing two fences, roughly parallel, at the borders of the first sand dune. Higher grows the dune and wider its base. Other sand fences are added as needed. The final step is to plant native grasses in the dune to hold it firmly and eventually native trees will be planted on the top to make it permanent.

Fore-dunes and dune ranges over 70 per cent. of the area, some 152 miles, are being created in what is probably man's largest project to fight the old men of the sea and wind.

Science enters the work through studies of wind speeds, the size of sand carried and records of the beach and off-shore underwater profile. Simple but ingenious sand traps have been erected that catch flying sand at levels up to three feet. Instruments for measuring wind velocity are operated in three shifts 24 hours a day.

Already it has been found that the formation of even a low fore-dune on a beach changes the underwater profile off shore and that the slope of the profile grows flatter and thus less likely to be menaced by water erosion. Already dunes 25 feet high and with a broad base of 180 feet have been achieved. The largest one has been developed directly in front of the Cape Hatteras lighthouse

to increase the protection of this most valuable marine marker.

Two airplanes are used by the Park Service for transportation in the desolate region. To get supplies across one roadless, 80-mile stretch of beach takes 10 hours by boat that hitherto has been the best means of transportation. By airplane the trip takes not more than 45 minutes; perishable supplies are thus transported in one-ton loads. The payroll, which one might also call a perishable cargo, goes the same way.

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ARCHAEOLOGY

Spain Gives War Lesson—Saving Nation's Relics

SPAIN is giving the world a lesson in one angle of warfare.

Hot as fighting has been in Spanish civil war, the people have not deliberately "made war" on the national treasures of paintings, historic buildings, and museums.

True, the famous Alcazar in Toledo is wrecked. But the Alcazar, after all, was a fortress as well as palace, and even its 2,000 years of history would scarcely exempt it from its intended use.

Spain's officials have been practical enough to remove many art masterpieces and antiquities to safe hiding places. Public sentiment is also proving a safeguard against wanton destruction.

Word of the way Spain is handling this problem was received as rather glad news by the International Office of Mu-

seums, which recently held a conference on ways and means of protecting cultural objects from war damage.

People fighting a civil war are likely to be more reasonable about not tearing up their own country than foreign invaders would be, especially if the war is not sectional. Still, the Spanish attitude is regarded as something of a public example.

The museum officials feel that public sentiment is a real and powerful defense to protect from shell fire the world's museums, cathedrals, art galleries, and libraries. To this end they advocate greater effort to educate people to respect and admire fine things produced by civilization.

Meanwhile, the problem of protecting such structures from war is still studied. Fighting is developing along lines that threaten greater danger to buildings than ever before. One long-discussed project is to mark certain types of buildings with a special flag that would make them zones of peace. The museum experts urge that specialists in military tactics and in international law join them in an attempt to see whether any practical regulations can be worked out, that battling armies would respect.

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RADIO

Magnetic Storm Interferes With Trans-Ocean Radio

RADIO communication across the Atlantic was somewhat interrupted Saturday night, June 5, and before daylight Sunday morning, RCA informed Science Service.

The cause apparently was a minor magnetic storm which was observed by scientists of the U. S. Coast and Geodetic Survey observatory at Cheltenham, Md.

This was the first significant magnetic disturbance since the very severe magnetic storm that occurred during the last week in April, which was one of the biggest on record. As a rule, these disturbances come about every 27 days, so that the recent one was nearly a week overdue.

Magnetic storms are correlated with unusual sunspot activity, and during them the aurora borealis often is visible well to the south of its ordinary zone.

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A new alloy that is extremely resistant to acids has been developed by combining nickel, iron, and molybdenum.