



ZOOLOGY-GEOGRAPHY

Polar Cold Seen as Agent In Distribution of Animals



The Bowyer's Tree

"What of the bow? The bow was made in England,
"Of true wood, of yew wood, the wood of English bows——"

A FINE song for archers, even though the men who sped the terrible steel-tipped sleet of Agincourt knew it not. But they would have sung it had they known it, for they knew the value of the yew-wood bow.

There is something peculiar about the wood of this evergreen tree, stiff and yet springy, that gives it high value for this particular purpose. A wood of greater elasticity would not have the proper "drive" to impart to the arrow; one of greater stiffness would be too hard to bend and might break when pulled upon.

The yews of England were not sufficient in the old days to supply bowstaves for all the fighting English men who followed their armored lords over the French marches or into the Holy Land. For this reason Spanish yew had to be imported, and an old English law required that with every cask of Spanish wine the Spanish exporters had to ship a certain number of good yew staves. Modern bowyers like the Spanish yew when they can get it, but it is scarce and increasingly hard to obtain. They find, however, that the California yew serves excellently instead.

The yew native to eastern North America is a low and sprawling bush rather than a tree, and never produces big enough branches to be shaved into bows. There is also a Florida yew, an exceedingly rare species, which shares this small-growth habit of the Canadian yew. These two species are of value chiefly as ornamental plants.

Science News Letter, March 14, 1931

ICE, and the cold winds and snowstorms that blow from the face of glacial regions, have been the great shepherds that arranged the world's present distribution of animal life.

This was the belief of the late Prof. W. D. Matthew of the University of California, as expressed in a contribution sent to the international scientific journal, *Scientia*, just before his death.

Looking at a globe, or at a non-distorted map of the world, Prof. Matthew saw that the continents tend to bunch together at the northern "end" of the earth, with their southern tips stuck down prongwise and far apart. During the warm climatic phases which are really the normal state of world weather in the geological time sense, animals can travel about very freely in this great northern land zone, and flourish near the North Pole.

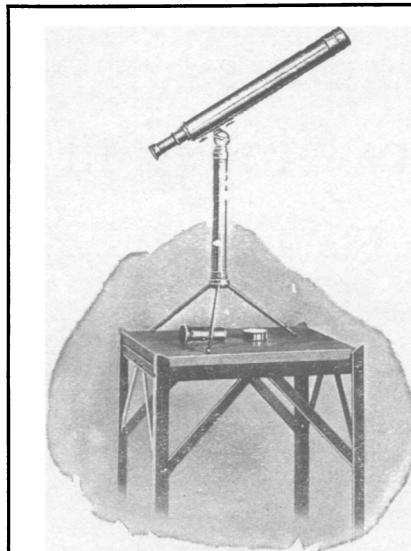
Then, when some hundreds of thousands of years of stiff winters come on,

with perhaps an ice age to climax the matter, all but the very hardiest of them must move southward or perish. So long as the barrier of ice or of persistent cold weather stands against them, "East is East, and West is West, and never the twain shall meet." American animals evolve in America, Asiatic in Asia; and there is no intercontinental traffic.

This cycle, of free intercourse followed by blockades of cold, repeated itself several times in the earth's long history, Prof. Matthew held. Each time it happened, it started a new series of southward migration waves, and at the same time the disturbances and hard times forced a speeding-up in the evolutionary process.

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A seaside villa belonging to the Emperor Nero has been excavated at Anzio, to the south of Rome.



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