of paintings by Morse, chiefly portraits. They help to confirm the view, which many artists hold, that Morse was one of the foremost portrait painters of his time, comparing not unfavorably with Gilbert Stuart. We see Morse as a public-spirited citizen, a leader in the Nativist movement, a forlorn hope candidate for the mayoralty of New York. We note his fight against the O'Connel Guards, a military order of the Irish in New York, a forerunner of the German American Bund. We see him greeting the invention of the daguerreotype with great enthusiasm. He "saw in the image of a spider's head, no bigger than a pin, a minuteness of organization which he believed had not hitherto been known to exist. The discovery would open a new field of research, he predicted, with results as startling as when the microscope first came into use." He was one of the first American photographers. Then comes the great story of the beginning of the telegraph, and the Atlantic cable, the ridicule heaped by members of Congress on the idea of communicating intelligence through considerable distances by means of electric signals ("Senator Smith studied Morse's face for signs of insanity"), the successful experiment and the world's extravagant acclaim.

The author is critical in his appraisal of Morse as a scientist, but he gives a few quotations of the findings of scientific bodies. These make it clear that though Morse was not the sole inventor of the telegraph, he was the inventor of the Morse *method* of telegraphing—the method that has survived, with slight modifications, through these hundred years.

The reviewer has one mildly adverse criticism. It is in regard to the title. "Why drag in Velasquez?"—in this case, Leonardo? True, Morse called attention to the fact that artists may have abilities along various lines. He named Leonardo as a conspicuous example. Prime also names Leonardo as a scientist-artist, similar to Morse. But though there are points of similarity there are also great differences. Think of the origin of the two men. Think of Morse, the New England Puritan, the lifelong uncompromising foe of low standards in human conduct—then compare him with Leonardo. The author must share the view that there is an important difference, for there is probably more than mirth in his statement concerning Morse's friend and teacher, "Allston (a Southerner) was a Godfearing man, even compared with New Englanders." So where does Leonardo stand?

The book brilliantly bears out Professor Nevin's statement, "The life of Samuel F. B. Morse . . . is fascinating partly because of the versatility of his undertakings, partly because of the rich interest of his mind and character."

GORDON FERRIE HULL

ALASKA DIARY

Alaska Diary, 1926–1931. By ALEŠ HRDLIČKA. The Jaques Cattell Press, Lancaster, Pa. xv + 414 pp., with 232 illustrations. 1943. $5.00.

WERE it not for gas rationing and military priorities this book would precipitate a traffic jam on the Alaska highway. Dr. Hrdlička is careful to point out that there are other spots in the world for greater adventure, yet his clear style paints an intriguing picture of Alaska as offering the challenge of a frontier. The book is a diary of his archeological expeditions to Alaska, Yukon, Kuskokwim River and Nushagak, but it tells far more than the mere recovery of stone tools and human bones. It tells much of the living people of Alaska; it tells of the weather, of food, of transportation; it tells of opportunities, of hardships; and always it tells of Alaska, our far northwest border-country. Dr. Hrdlička went on these expeditions not as an "adventurer" or "explorer," but as a trained observer seeking to learn more of natural laws, especially as related to man and his prehistory. The volume is not an epic with pretense to literary grandeur; it is the day-by-day record of a simple unassuming man who looked, listened and stopped to learn.

On the expeditions Dr. Hrdlička collected nearly 4,000 crania and skeletons and measured many living. From the study of these data he concluded that "the entire littoral region of northwestern Alaska north of the Yukon, the habitable islands of the Bering Sea and the lower portions of the three large rivers appear to have always been occupied by the Eskimo." No trace of any other type of man has been found here. The upper reaches of the Yukon, the Kuskokwim and Nushagak were always sparsely occupied by Indians.

The Eskimos are not homogeneous, probably traceable to "a number of strains" in Asia. Three subtypes are recognized among the Indians: (1) the Yukon, Tananá and upper Kuskokwim; (2) Shageluk-Slough; (3) the Chugatchi to the south of the Nushagak. There are no distinct lines of demarcation between Eskimo and Indian types, although extremes in each are readily distinguishable, one from the other.

Dr. Hrdlička concludes that no mass migration came over from Asia. Rather, "the Asiatics came in dribbles," along the coast and a bit inward at river mouths. As to the time element, he concludes that "it could not be called very ancient, not reaching perhaps beyond the earlier parts of our era."

The publishers are to be congratulated upon their technical skill. The book is printed upon excellent paper and the illustrations, mostly photographs by the author, often taken under adverse lighting condi-

tions, are well reproduced. The author is to be congratulated upon a fascinating record of scientific observation. It probably won't rank with the "Voyage of the Beagle" in importance, but it certainly evidences the same motivation of intellectual and scientific curiosity.

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TIMBER

Timbers of the New World. By SAMUEL J. RECORD and ROBERT W. HESS. xv + 640 pp., 58 plates, 75 figs., 8 maps. New Haven: Yale University Press. 1943. $10.00.

"TIMBERS of the New World" is the successor to but not a second edition of "Timbers of Tropical America," published in 1924. The new work contains more than twice the amount of material as in the old and is treated differently. In the old work a detailed macroscopic description is given for each individual wood with very little anatomy. Since the publication of "Timbers of Tropical America," Record and Hess and other investigators interested in the comparative anatomy of wood have devoted more time to detailed anatomy. However, in order to limit the descriptions of so many woods to one volume, the old plan could not be adopted for the new work because its field is extended to include species north and south of the tropics of the entire Western Hemisphere. This is the first attempt by any one to deal with all the larger woody plants of the Americas.

The new work is an encyclopedia of the best information available concerning the trees and larger shrubs native to South America, Central America, Mexico, the West Indies, U. S. A. and Canada. There are descriptions of the trees and woods of more than 1,100 genera and 155 natural families. For convenience of the reader the arrangement is alphabetical by families and genera. Under each family is listed the number of genera and species, their geographic location and a general description of flowers, leaves and fruit. The genera of greatest economic importance are emphasized. There follows a general macroscopic description of the woods. In fine print is given a detailed anatomical description of the family by genera followed by a reference such as that given for the Anacardiaceae: "For anatomy of the different genera see Tropical Woods 60: 16–45." Following the anatomical description of the woods of the family the various genera are listed alphabetically. Under each genus are given the important economic species with descriptions of the tree, flowers, fruits and leaves, and a macroscopic generic description of the woods. The important economic products such as drugs, oils, resins, fruits, etc., together with the uses of the woods are listed for each species. At the end of each generic account is given an alphabetical list of trade and common names for the woods by countries.

The latest accepted terminology is used doing away with much confusion which existed concerning the nomenclature of certain genera, such as: *Tecoma* and *Tabebuia* in the Bignoniaceae; certain species of *Cordia* in the Boraginaceae; *Amburana* and *Torresia, Cajoba* and *Pithecolobium, Libidibia* and *Caesalpinia, Vatairea, Andira* and *Tipuana* of the Leguminosae. Other examples could be mentioned. Furthermore, the botanical identities of timbers which have been known to commerce for a long time, such as Cocobolo, the Rosewoods, Brazil wood, Kingwood, etc., have been cleared up.

In recent years certain investigators have attempted to correlate anatomical characters of the stem with gross morphological characters in a natural system of classification. Toward this end the results obtained from anatomical studies, approached from the point of view of phylogeny, have given striking results. The authors state in the preface:

> Taxonomic botanists base their concepts of families, genera, and species on morphological characters of the reproductive and vegetative parts of a plant, and are not always in agreement as to the constitution of particular groups. . . . The present authors have considered these taxonomic problems from the standpoint of wood anatomy, and when confronted with alternative proposals by different botanists, have made their choice on the basis of anatomical characteristics.

As an example, the species of *Picrodendron* have been variously referred to the Juglandaceae, Anacardiaceae, Sapindaceae and Simarubaceae, are similar in wood structure, and do not indicate close affinity to any of the four families to which the genus has been referred. The genus, therefore, has been placed in the family Picrodendraceae established by Small in 1917. Several other examples concerning inconsistencies in current classification are called to the attention of specialists in those groups.

Toward the end of the book is an explanation of the terms used in the wood descriptions. The terms are illustrated with 75 excellent photomicrographs prepared especially to show variety of anatomical details. Also at the end of the book are lists of families classified with reference to special properties and uses of their bark, leaves and timber. The special lists are designed for convenience in locating trees and woods having special properties and uses or suitable for the same purposes as better-known kinds. The wood descriptions are based upon specimens in the collections of the Yale School of Forestry. The total number of samples available for comparative study is about 40,600, of which 22,000 are American. At the end is a complete bibliography of the principal publications arranged by countries.