tensive areas almost entirely unmingled with other species, occupy­ing the so-called “ pine barren ” zone of the southern Atlantic States, of especial importance in North and South Carolina and Georgia. The wood of this tree is heavy, hard, and tough. It furnishes almost all the tar, pitch, rosin, and spirits of turpentine used in the United States. Another important pine, *P. mitis,* the yellow, short-leaved, or bull pine, ranges from Staten Island south to western Florida, through the Gulf States and Tennessee to east­ern Texas, and west of the Mississippi into Kansas and Missouri, reaching its greatest development in western Louisiana, southern Arkansas, and eastern Texas. It is an important tree in the south­west, and west of the Mississippi, and among the yellow pines only inferior in value to *P. palustris.* Another important conifer, next to *Pinus palustris* the most characteristic tree of the south-eastern coast timber belt, is the cypress ( *Taxodium distichum),* which ranges from Delaware south along the coast to Florida, and south-west to Texas, forming extensive forests in the southern Atlantic and Gulf States, and also extending up the Mississippi to southern Illinois and Indiana. The cypress is a marked feature in the swamp country which extends along the coast from Virginia through North and South Carolina, of which the Great Dismal Swamp, on the borders of Virginia and North Carolina, may be taken as the type. These swamps are locally known through the region where they occur as “dismals” or “pocosins.” The largest continuous area of swamp in North Carolina lies between Albemarle and Pamlico Sounds, covering an area of nearly 3000 square miles. The prevalent growth of the best swamp lands is the black gum *(Nyssa sylvatica),* tulip tree or poplar, cypress, ash, and maple, the proportion of cypress increasing as the soil becomes more peaty. These so-called swamps—in large part at least—differ essentially from what is usually called a swamp, being considerably elevated above the adjacent streams ; they are, in fact, immense accumulations of decaying vegetation, often peaty in character with more or less fine sand intermingled, and with a very considerable variety of forest vegetation. Portions of these swampy areas have been successfully drained and brought under cultivation ; other portions have resisted all attempts of the kind, although there has been a large amount of money expended in endeavouring to reclaim them. Besides the pines, there are to be mentioned here the spruces, firs, larches, and cedars, which together form a marked zone of vegetation decidedly northern in character, extending through the northern part of New England, through Canada to the Upper Lakes, and far to the north and north-west, where it unites with the forest belt of the Rocky Mountains, in almost the extreme northerly extension of this range within the United States. The northern forms of coniferous trees also occur in the highest portion of the Appalachians as far south as North Carolina, and are found along the most ele­vated ridges of the Rocky Mountain range, from the extreme north through to Arizona and New Mexico, and along the culminating portion of the Sierra Nevada nearly to the southern border of California. One of the most characteristic of these northern trees is the balsam fir *(Abies balsamea),* which ranges from Labrador north-west to the base of the Rocky Mountains, occurring in central Michigan, along the north shore of Lake Superior, and in the more elevated and damper portions of the Appalachians south to Virginia. This is the tree which produces the “ Canada balsam.” There are two species of spruce which have about the same range as the species last mentioned, the black spruce *(Picea nigra)* and the white spruce *(P. alba).* The hemlock *(Abies canadensis)* is another very characteristic tree of the northern forests, where perhaps more than any other tree it sometimes occurs in “ groves ” or over areas of considerable size to the almost entire exclusion of other species. It is met with along the higher Appalachian ranges, south as far as Alabama ; and, although it is much more abundant at the north than at the south, the largest specimens of it are said to be found in the high mountains of North Carolina. The bark of this tree is the principal material used in the northern States in tanning. The larch *(Larix americana),* much more commonly called the tamarack or hackmatack, is another very characteristic northern species, although, like most of the others, ranging to a considerable distance south along the higher regions of the Appalachians. Swampy areas, over which water stands during a considerable part of the summer, are often covered with a sparse growth of this species, to the almost entire exclusion of other trees. These swamps, which are especially common in portions of the upper peninsula of Michigan, are usually known as tamarack swamps. The white cedar or arbor vitæ *(Thuja occidentalis)* is a very common species in the north, and is much cultivated as a hedge and ornamental tree. Large swampy areas in the north, especially in the region south of Lake Superior, are covered with a gnarled and tangled growth of this species, and are called by the English-speaking population “cedar swamps,” and by the French *voyageurs* “savanes.” In the farthest north-western regions of the United States, as, for instance, on Isle Royale and the adjacent shore and islands of Lake Superior, the dwarfed and tangled growth of the characteristic northern conifers makes travelling difficult and vexatious. It is sometimes, for long stretches, almost impossible to get over the ground except by crawling on hands and knees. The white cedar *(Chamæcyparis sphæroidea,* more commonly known as *Cupressus thyoides)* is a tree pretty closely limited to the Atlantic and Gulf coast region, having its maximum development in the southern Atlantic States. It is one of the characteristic trees of the southern swampy belt.

Passing to the consideration of the western or Cordilleran side, we begin with the narrow, but in part densely forested, belt of the Pacific coast. In this connexion notice will be taken of the dis­tribution of the forests of the Rocky Mountains ; for, although the two regions are separated over several degrees of latitude by the intervening region of the Great Basin, where forests are extremely scantily distributed, there are many points of resemblance between them, especially in their northern extension. In the size and density of growth of some of the species, and in the grandeur of the forest scenery generally, portions of the Pacific coast belt surpass anything else that the country has to offer. This region of dense forest growth begins on the western slope of the Sierra Nevada, at the southern extremity of the range, continuing north along that slope into Oregon and Washington Territory, where, in the region adjacent to Puget Sound, the forests are most remarkable for their density, as well as for the size and elevation of the individual trees. The most widely distributed and most valuable of the trees of this belt is the Douglas fir *(Pseudotsuga Douglasii),* which ranges from British Columbia south through the Coast mountains, and along the western slope of the Sierra Nevada to Arizona, and south-east along the Rocky Mountains through Montana, Wyoming, and Colorado, but not through the Great Basin. It often forms exten­sive forests, especially in the northern region, where it attains its maximum development. Its wood is extensively used on the Pacific coast, the headquarters from which it is supplied being the region adjacent to Puget Sound, where it grows to twice or three times the height it has in the Rocky Mountains. The yellow pine *(Pinus ponderosa)* ranges from British Columbia south along the Cascades and Sierra Nevada to Mexico, and occurs, irregularly distributed, along the Rocky Mountains from Montana, where it is quite abundant, to Arizona. For size and height this species, as well as the Douglas fir, is remarkable. Its wood is variable in character, but is largely used where a better quality cannot be obtained. The sugar pine *(P. Lambertiana)* occurs in abundance on the western flanks of the Cascades and the Sierra Nevada, and is especially well developed in the central portion of the latter. It is one of the most conspicuous of the species which make up the grand forests of that part of the Sierra which lies at an altitude of from 2000 to 7000 feet above the sea. The digger pine *(P. Sabiniana)* is the characteristic tree of the foot-hills of the Sierra Nevada. It is remarkable for the large size of its cones, the seeds of which were formerly an important article of food for the abori­gines. A characteristic tree of the Californian Coast ranges, similar in many respects to *P. Sabiniana,* and also having large and beautiful cones, with very long, sharp, recurved points, is *P. Coulteri.* The wood of these two species is of little value except for fuel. Other Coast range pines of interest are—the Monterey pine *(P. insignis),* a tree peculiar to the sea coast, from Pescadero south to San Simeon Bay, and the Obispo pine *(P. muricata),* limited to the Coast ranges, from Mendocino south to San Luis Obispo. The pines of the high mountain region are—*P. monticola,* occurring in the Sierra Nevada at an altitude of from 7000 to 10,000 feet, and common in the northern part of the Rocky Mountains, as well as in the Cascade range, and in portions of the mountainous region of Idaho, where it is an important and valuable tree, and is sometimes called the white pine ; *P. flexilis,* a tree occurring in limited numbers in the highest parts of the southern High Sierra of California, and here and there south along the higher portions of the Rocky Mountain ranges and also in the Great Basin, from Montana south to Arizona ; *P. albicaulis,* by some considered a variety of *P. flexilis,* by others a distinct species, and having a similar range with that species ; *P. Balfouriana,* and *P. aristata,* a variety of *P. Balfouriana,* found about Mount Shasta, at from 5000 to 8000 feet in altitude, and around the base of Mount Whitney, also occurring in the very highest portions of the Rocky Mountains, and in parts of the Great Basin south to Arizona ; *P. Jeffreyi,* by some considered a variety of *P. ponderosa,* reaching its maximum development in the Sierra Nevada, and occurring throughout the whole length of that range at high elevations ; *P. contorta* and *P. Murrayana* (the latter often con­founded with the former, and by most botanists considered as a variety of it), a common species on the High Sierra at from 8000 to 9000 feet in altitude, extending into Oregon and through the Rocky Mountains south to northern Arizona. Two trees, limited in their occurrence to California, and of great interest on account of their size and beauty, belong to the genus *Sequoia,—*the red- wood *(S. sempervirens)* and the big tree (*S*, *gigantea).* The red­wood occurs quite close to the coast, in a narrow almost uninter­rupted belt, from a point in the Santa Lucia range about fifty miles south of Monterey to very near the north line of the State. North of Russian river this tree forms an almost unbroken forest, extremely grand in character, individual trees rising to nearly 300