

obovate undivided, entire, (faces of leaves whitened glaucous, pulvinuli pale brown, cone long-stalked, cylindrical or ovoid oblong, 2 to 2½ inches long, largest diameter, ½ inch., scales quite entire, at first green, changing to pale brown); *rubra*, cones ovate-oblong, scales split into two lobes, margin otherwise quite entire, (doubtfully distinct from the next, leaves more acute, cones larger, green when young, scales constantly and evidently split-lacerate irregularly, margin otherwise entire, the wood becoming reddish); *nigra*, cones ovate-acute, scales obovate, undivided, erose, denticulate, bark blackish, faces of leaves white-dotted; cones shortly peduncled, drooping, an inch and a-half long, at first purpurascens, finally reddish brown, scales with thin margins becoming undulate-lacerate.

Professor Beck, in the Botany of the Northern and Middle States, (1833), which formed the precursor of Dr. Asa Gray's standard Manual, described three species (p. 340), as: *nigra*, \* \* \* leaves straight, strobile ovate, scales elliptical, undulate on the margin, erose denticulate at the apex; *rubra*, \* \* \* strobile oblong, scales rounded, somewhat two-lobed, entire on the margin; *alba*, leaves incurved, strobile subcylindrical, loose, scales obovate, very entire.

I have not been able to refer to the first edition of Dr. Gray's Manual of Botany of the Northern United States, (published in 1848), but in the second edition (1856) the red spruce of Beck is dropped, and only *nigra* and *alba* described,—the former with dark rigid sharp green leaves, cones ovate, or ovate-oblong, (one to one and a-half inch long), the scales with a thin and wavy or eroded edge,—a common variety in New England having lighter coloured or glaucous-green leaves, rather more slender and loosely spreading, and indistinguishable from *alba* except by the cones. *A. alba* is characterized as having oblong-cylindrical cones (one to two inches long), the scales with firm and entire edges; otherwise as in the lighter-colored variety of the last. The remark is added: probably these two, with the red spruce, are mere forms of one species.

In subsequent editions of the same work, the descriptions are amended, the leaves of *nigra* being characterized as either dark green