1912, a water palm was apparently known a century earlier as attested by Lunan in his voluminous Hortus Jamaicensis, 1814: "The Cabbage trees are said to abound in the morasses towards Negril Bay, where they grow to the height of one hundred and fifty or one hundred and sixty feet." Negril is at the western extremity of the island, far away from the Black River region, and a marsh is indicated there. In the Middle Quarters morass the trees attained no such height as indicated by Lunan. Beccari quotes Harris as authority for the statement that the tree is "about 18 meters high," a dimension undoubtedly meant to cover the total elevation of the palm. On his label at Hope Gardens Harris writes "tree up to 60 ft. high." The author's statement of bole 10-12 meters in the foregoing diagnosis is based on actual measurements of native trees in bearing; to this dimension is to be added the crownshaft and leaf-crown. Most of the boles seen by the writer were symmetrically formed, showing a gradual but evident taper in the upper third.

In the New York Botanical Garden are two sheets of Harris 9843 from Middle Quarters, named *R. princeps* by Britton; also two sheets of Britton 1637 from the same place at the same date (Sept. 23, 1907); and two sheets from Negril and vicinity, "border of Great Morass," Britton & Hollick 2100, March 9-12, 1908, 25 meters high. W. Harris, Superintendent of Hope Gardens, Kingston, had collaborated with N. L. Britton in the preparation of a Jamaica Flora, but which was not published. The manuscript had been returned to Dr. Britton May 28, 1908. Under Roystonea in this manuscript are two species keyed as follows:

Fruit narrowly oblong, curved. 1. oleracea
Fruit oblong-ellipsoid, scarcely curved. 2. princeps

The latter had been given a new specific name by Britton but *R. princeps* was later substituted. *R. oleracea* is "mountain cabbage" and occurs on "hillsides in moist regions from 200 to 1500 meters"; *R. princeps*, "marsh cabbage" is "in morasses and river valleys near the coast." What was known to Harris and Britton as *R. oleracea* is here described as *R. jamaicana*.

† 6. **Roystonea jamaicana,** spec. nov. JAMAICA ROYAL PALM. Figs. 219 right, 220a, 222, 223, 224, 225.

Areca oleracea, Lunan, Hort. Jamaicensis, i, 133 (1814), in part.
Oreodoxa oleracea, Auth.
Oreodoxa regia, Becc. in Pomona Coll. Journ. Econ. Bot. ii, 263, f. 113 (1912).

A *R. regia* differt trunco tenui non-ventricosoque, coma culmen superius spadicesque non celante, rachillis undulatis in spatha, fructu obpyriformi cum basi angusto vel constricto.

Slender hard-wooded palm to 20 m. or less, the trunk commonly with continuous gradually narrowing outline and no bulge: crown usually sparse and open, often less than 10 leaves, not drooping completely over the crown-shaft and flower-clusters, and these parts therefore remaining conspicuous from the ground: leaves to 3 m. long, with conspicuously flattened lower

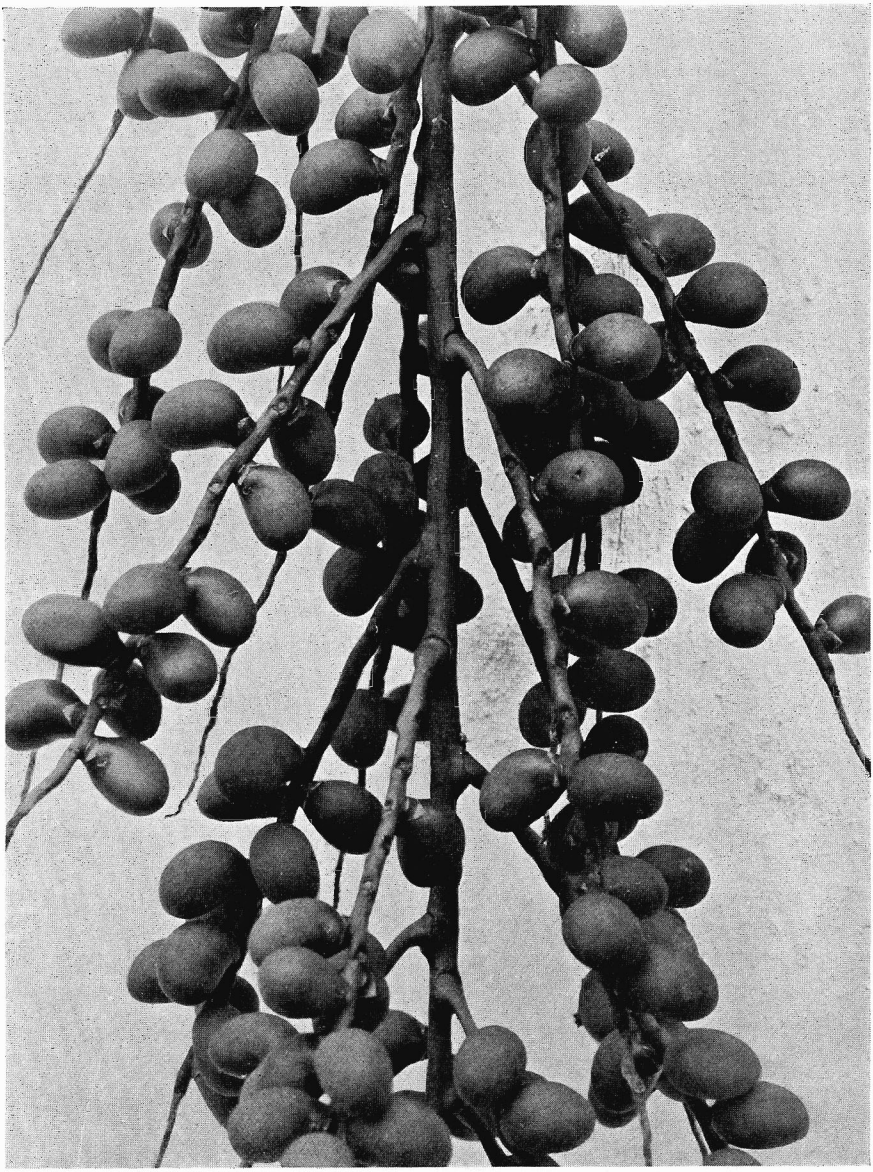

FIG. 225. NATURAL SIZE FRUITS of Jamaica royal palm.—*Roystonea jamaicana.*

rachis, pinnæ in double series either side; pinnæ 60 or more cm. long, green both sides or not prominently lighter colored underneath, main or larger ones 3-5 cm. broad, mid and side ribs prominent and not scaly or lepidote underneath, bilobed at apex and one of the lobes likely to be caudate: flower-clusters or spadices relatively short and most of the branches rigid or soon becoming so, glabrous, the main laterals 4-5 or 6 dm. long, with short side-branches or rachillæ of ordinary thickness and not needle-pointed nor filiform-drooping, densely flowered: flowers larger than those of *R. princeps* for the most part, staminate buds 5 mm. long before anthesis and the petals conspicuously nerved and the expanded flower 10 mm. across but variations occur in size: fruit oblong-globular or obpyriform, 12-15 mm. long and 9-11 mm. broad, one side straightish or somewhat curved, with a more pronounced "neck" than in *R. princeps*, mesocarp thin; seed somewhat adherent to the shell or endocarp by its back, about 8-10 mm. long, raphe less laciniate.

"Mountain cabbage" of Jamaica, common on hills and ridges, on bluffs, in woods and fields in somewhat elevated valleys, more rarely in lower situations; long known as *Oreodoxa oleracea* and since Beccari's studies (1912) as *O. regia*, but clearly distinct from either. Type localities of *R. jamaicana* are in nterior valleys, as near Ewarton in St. Catherine and Claremont in St. Ann (as *Bailey nos. 15069, 15071*).

Although Beccari gave a definite and accurate account of *O. princeps*, as far as his scant material allowed, that species has not been recognized recently in Jamaica; but the writer collected it fully in the morass at Middle Quarters in 1931, and found it to be strikingly different from the older species; this led to a new study of the common upland palm. The distinctness of *R. jamaicana* from *R. princeps* now remains a problem for residents of Jamaica, by detailed study, to determine. In flower-clusters of *R. jamaicana* one may now and then find a rachilla or strand suggesting those of *R. princeps*, but the author has not seen any of them nearly so long and slender and so sparsely furnished and so straight and long-pointed as on the other species, nor a comparable spadix. One is a water palm, unusual in the genus, the other an upland species; there appear to be consistent differences in stature, bole, under surface leaf color, very broad and flat lower part of rachis of leaf of the upland species, pattern of rachillæ, size of flowers, striate petals of staminate flowers, size and shape of fruits, adhering seed, while the long drooping straight filiform flower-branches of *princeps*, swaying in the wind, and the fragrant bloom, are apparently unlike anything else known in Roystonea.

We have noted (page 349) that Patrick Browne in 1756 made distinction between "The Barbadoes Cabbage Tree" and "The Jamaica Cabbage Tree," seeds of the former having been "first carried to Jamaica by the present governor, His Excellency Admiral Knowles." He describes the Barbadan tree as of "a very considerable size" and says it is "the most

beautiful tree I have ever seen, and may be very lawfully esteemed the queen of the woods." The Jamaica cabbage "grows commonly to a moderate size," and was even then known as mountain cabbage. More than a half century later Lunan seems to consider the two palms, the Barbadan and Jamaican, to be different: "The Barbadoes cabbage, which is planted here for ornament, is one of the most beautiful trees in the world." From Barbados also originated the majestic *oleraceas* in British Guiana according to Sir Robert Schomburgk in his History of that island in 1848.

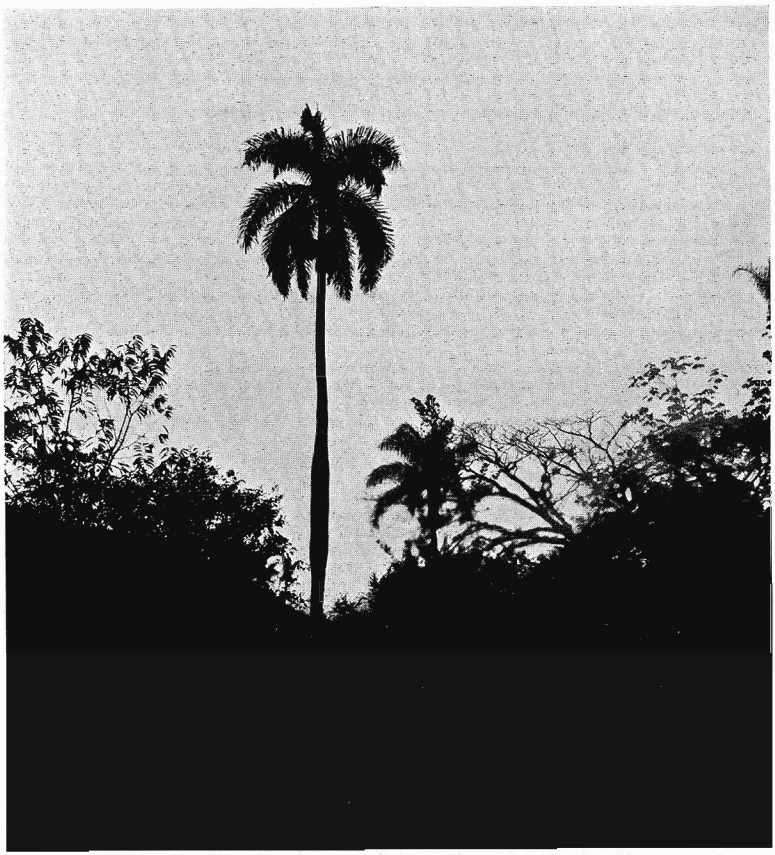

FIG. 226. NIGHTFALL, when *Roystonea regia* makes silhouette above woodlands of Cuba. Exposure 15 minutes.

fornia and Florida. In writing of the rain forest of the Eungella Range in Queensland, W. D. Francis states that "In the valleys there were large numbers of the Northern Bangalow palm (*Archontophœnix Alexandræ*), which is similar in appearance to the Bangalow palm (*Archontophœnix Cunninghamii*), which extends much farther south"; and again: "Very large numbers of the Bangalow palms (*Archontophœnix Cunninghamii*) were also found along the track to Mt. Dalrymple at about 3,000 ft. In places these palms were the predominant constituent of the forest. The Northern Bangalow palm (*Archontophœnix Alexandræ*) appeared to be comparatively rare in the upper parts of the range" (Proc. Royal Soc. Queensl. xxxix, 109, 110, 1928). Type locality, Fitzroy's River, Queensland.

† **A. Alexandræ** var. **Beatricæ,** C. T. White, in litt., status novus. BEATRICE or STEP PALM. Figs. 228, 236, 237, 238.

Ptychosperma Beatricæ, F. Muell. in Chemist and Druggist, Feb. 1882.

A. Beatriceæ, F. M. Bailey, Queensl. Fl. v, 1675 (1902).

A Beatricæ, F. M. Bailey, Compreh. Cat. Queensl. Pl. 573 (1909).

Bole stout, soft in texture, prominently enlarged at base, the rings very pronounced and often looking like steps: leaf-crown having ascending or cuneate base rather than hanging fronds, in this respect suggesting var. *excelsior* of *Roystonea oleracea* (Fasc. vii, Fig. 204).

Northern Queensland; sometimes seen in cultivation.