hooked peduncles glabrous, curved downward almost like a spiral, somewhat flattened, usually opposite a leaf, often with the portion of the branch above it more or less aborted, so as to make it appear terminal; calyx three parted, the divisions ovate-acute; petals six, ovate lanceolate, brownish red on the upper part, with broad claws, woolly or pubescent (cotoneux), concave within and constricted between the claws and the limb, the three outer petals about three-fourths of an inch long, somewhat larger than the inner, and relatively broader; ovaries about 8 to 12, gradually tapering upward to the obtuse stigmatic apex, clothed with minute hairs, and containing two basal collateral erect ovules; fruits several, rounded ovoid, abruptly pointed at the apex, nearly sessile, about the size of a walnut inclosed in its hull, at length smooth, lightly punctate, and enclosing two oblong seeds truncated at the base rising side by side from the base, more or less compressed and bearing a marginal groove around the periphery of the hard bony testa. This species was described by Lamarck from specimens collected by Sonnerat in the East Indies and Madagascar. *Artabotrys uncinatus* is frequently planted in the warm regions of the Eastern Hemisphere for the sake of its fragrant flowers." (*W. E. Safford.*)

37014. ISCHAEMUM BINATUM (Retz.) Buse.
(*Spodiopogon angustifolius* Trin.)

From Calcutta, India. Presented by Mr. D. Hooper, Economic Botanist to the Botanical Survey of India. Received January 23, 1914.

"This grass is a wild plant, chiefly produced by root cuttings from old clumps, and its seeds are thus seldom, if ever, harvested. They have to be produced by special requisition, but the plant is abundant in hilly localities, where the simple cultivators seldom care to depart from their established primitive methods." (*Hooper.*)

"A perennial grass, plentiful in drier tracts of India, from Chota Nagpur and Rajmahal to Nepal and Garhwal, also throughout the plains northward, viz, in the Central Provinces, Central India, and Rajputana to the Punjab, Kashmir, and Afghanistan, ascending to altitudes of 7,000 feet. The grass, from the most ancient times, in the localities where it abounds, has been extensively used for making ropes, string, and mats, and utilized in the construction of rope bridges, and to some extent takes the place of jute in agricultural sacking.

"Sir D. Brandis was the first to recognize that Royle, Wallich, and others were in error in overlooking the grass Ischaemum as the most important, if not the true *bhabar*. Stewart (*Jour. Agri. Hort. Soc. Ind., 1863, xiii, 293*), while acknowledging his indebtedness for this correction, expressed the opinion that the grass should in the future play an important part as a paper material; he was thus apparently the first to suggest that use for the grass. Duthie led to a true identification botanically, and Sir George King pioneered the trade as a paper material. In the Annual Report for the Botanic Gardens of Calcutta for 1893–94, he tells us that he had sent home in 1873 samples of the grass to a paper maker in Scotland, who reported favourably on it, and again in 1877 had furnished the late Mr. Routledge, through the India Office, with a consignment for experiment in Sunderland. Investigations were also made in India from 1882, the first by Mr. Deveria, and finally by the Bally Mills Company (Ltd.) and others, until the grass became firmly established as a paper material.

"The *Kew Bulletin* and the *Indian Forester* have devoted much attention to this subject for some years past, and the Annual Administration Reports of