rhombic ovate, pointed, pubescent beneath, and variously notched, of a shining red when they first appear in the spring, but bright green at maturity. The flowers are small, greenish-white in colour, and disposed in simple axillary racemes. The fruit is a round dry berry, as large as a pea, of a pale green colour, ripe in October. Like Rhus Venenāta, from the bark, when wounded, exudes an acrid, milky juice, which, exposed to the air for a few hours, changes to an intense black, which will leave indelible stains on linen or cotton, not effaceable by any known chemical, and which has been used as a marking ink. According to Dr. Jos. Khittel, the principal chemical constituents of poison ivy are gallo-tannic acid and a volatile alkaloid, to which it owes its poisonous and medical properties. The later researches of Prof. Maisch, however, have proved that the acridity of the juice is due to the presence of a hitherto unknown volatile acid, analogous to, but distinct from, formic and acetic,—Toxicodendric acid, which, when isolated, is found to affect the skin, either by direct contact or by its vapour, exactly as the fresh plant itself does, proving beyond doubt that the poisonous properties of the plant are due to it. This principle is in great measure dissipated in the process of drying, and hence dried preparations of the plant are much less apt to act noxiously, though even these should be handled with great care by such as are susceptible to poisoning by it. The plants for which Rhus Toxicodendron is most often mistaken are, the Virginian Creeper or American Ivy (*Ampelopsis Quinquefolia*), with which the climbing variety often entwines itself, and the *Aralias*, *Nudicaulis* and *Quinquefolia*, commonly known as Wild Sarsaparilla and Guiseng, often found growing with the low form. These plants are very easily distinguished if one will take the trouble to remember a single simple distinctive mark, viz., five leaflets on a single leafstalk, whereas Rhus Toxicodendron has only three. Other distinguishing marks are, that the Aralias have regular serrate leaves, and in Nudicaulis the flower stem is separate from the leaf-bearing one.

Physiological Action.—The toxical effects of the poisonous species of Rhus are produced in various ways and degrees of severity, but in all cases they are due to absorption by the system of toxicodendric acid. They may be the result of direct contact with any part of the plant or any pharmaceutical preparation of it; of inoculation with the juice; of exposure to smoke from the burning wood; of inhaling the steam arising in making preparations of it; of internal use; and lastly, of emanations from the growing plant. The only one of these methods of poisoning specially noteworthy is that by exhalations from the living plant itself. According to Cazin, such exhalations are only given off when the plant is not exposed to the sun's rays (as when it grows in the shade and during the night), and consist of hydrocarburetted gas mixed with toxicodendric acid in a volatile state. That they will cause poisoning in those exposed to their influence, without actual contact with the plant, and even at considerable distances, is now well authenticated, though some, even noted scientists, would seem still to doubt this fact. Thus, Wyville Thompson, of the late *Challenger* exploring expedition, states, that among the blacks of the West Indies there is a *superstition* that some species of Rhus will poison without actual contact. Aboriginal traditions will rarely be found to exist without some foundation, and in this case, so strong a one that it should have prevented the report being called a superstition. I could cite a number of instances of poisoning without contact, both recorded and coming under my own notice, but one or two will suffice. "A lady of known susceptibility was attacked after being out driving, though she had never left the vehicle, which kept the centre of the road. Here the nearest distance of possible exposure would be that of plants growing, where they were afterwards discovered, along the fence, a distance of over twenty feet." A medical friend of mine experienced a severe attack after passing, at a distance of at least three feet, a thicket in which grew a mass of the plant; while a gentleman so noted in the scientific world as to vouch for the accuracy of his powers of observation, while engaged in geological researches, found to his cost the effect of passing some, though he had previously noted it, and was hence most scrupulous not to let it touch him. It seems to me too, that the discovery of this method of poisoning by Rhus is peculiarly interesting, as offering a plausible solution of what are generally regarded as fabulous stories of the deadly effects of the upas tree of Java, under which the wearied traveller laying himself down sinks into a sleep from which he never wakens. Is it not quite possible that there is a native Javanese tree possessing similar, perhaps stronger, noxious properties to the Rhus Toxicodendron, and thus capable of poisoning its surrounding atmosphere?

The poisonous effects are both local and constitutional, according to the idiosyncrasy of persons; acting upon some only locally, upon others only constitutionally, and upon yet another, and the most frequently met class, in both these ways. A certain constitutional predisposition is requisite for the occurrence of poisonous symptoms, many individuals being quite insusceptible. I myself am a case in point, having often rubbed the Rhuses Venenāta