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I. On Some Peculiarities in the Stem of the Ivy

G. Ogilvie M.D. ^a

^a Aberdeen

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solution of the sugar of lead has, within my experience, been productive of the best results. The water of ammonia, warm vinegar and water, the warm decoction of the leaves of *Rhamnus oleifolius* ("Yerba del oso" of the Californian Spanish), or even pure warm water, are sufficient sometimes to produce a cure. All these remedies are, of course, applied externally by way of washes to the parts affected. But the only remedy that I have found invariably successful as an antidote for this poison is an indigenous plant growing very abundantly in this vicinity (Monterey), and in other parts of the State. It is a tall, stout perennial, belongs to the composite family, and looks like a small sunflower. It is from one to three feet high, has bright yellow flowers in heads one or two inches in diameter, and, as I have said, like small sunflowers flowering from June to October. Before flowering, the unexpanded heads of buds secrete a quantity of resinous matter. The whole plant, when growing on dry hills, is stiff and rigid, with narrow thin leaves; but in damp localities it is more robust and succulent, with wide fleshy leaves. Its botanical name is *Grindelia hirsutula* (Hook. and Arn.) The mode of using it is as follows:—The fresh herb may be bruised and applied by rubbing it over the parts affected; or, boiling it in a covered vessel, make a strong decoction of the fresh or dried herb, with which to wash the poisoned surfaces. Its remedial properties appear to be contained chiefly in the resin or balsam-like juice of the plant, which is particularly abundant on the surface. One application is sometimes sufficient for a cure; but if the disease has been of long duration, several days will elapse before relief is obtained. This plant is a remedy for the poison oak, used originally by the Indians of this vicinity, and by them its virtues have been communicated to the Spanish-Californian people, who are now commencing to use it. It may not be amiss to say, in conclusion, that the *Grindelia* is used also by the people of the country as a remedy for other cutaneous diseases which are characterised by heat and itching, such as nettlerash.

Sir William Jardine, Bart. stated to the meeting that the winter had proved very severe on the plants at Jardine Hall, which is 260 feet above the sea, and about 11 miles from it as the crow flies. He had lost *Buddleia globosa*, *Weigela rosea*, *Leycesteria formosa*, and many other similar plants. *Cupressus M'Nabiana*, and *Larix Griffithii* had been destroyed, and the small tips and shoots of *Abies taxifolia* had been injured. *Taxodium* had not suffered. The other plants from Oregon had been untouched, and none of them were protected. *Abies Pattoniana* was strong and hardy.

10th May 1860.—Prof. ALLMAN, President, in the Chair.

The following candidate was balloted for and duly elected a Resident Fellow:—

ROBERT ANDERSON, Esq., 41 St Andrew Square.

The following donation to the Society's Library was announced:—

The Botanists' Companion: a Direction for the use of the Microscope, and for the Collection and Preservation of Plants, with a Glossary of Botanical Terms, by Professor Balfour — From the Author.

The following donations to the Museum at the Botanic Garden were noticed :—

From Dr Greville—Roots of an Alder-tree, as taken from a pipe at Diddington Park, Suffolk.

Dr Christison—A piece of the Stem of the Fortingall Yew.

Mr Hardyman, Howard Place—Diseased Branches of Gooseberry, caused by insects.

Dr Thomas Anderson, H. M. Indian Service—Pods of *Bauhinia VahlII*.

The following communications were read :—

I. *On Some Peculiarities in the Stem of the Ivy.* By G. OGILVIE, M.D., Aberdeen.

The points specified in the paper were principally the following :—The complete fusion of the stems of the ivy, when strongly pressed together in the course of growth—the structure of the aërial rootlets or claspers—the abundant deposit of starch in the woody fibres. The fusion was shown to be at times of the most intimate nature. All the layers of bark are continued in a uniform sheet over the line of junction, and can be freely peeled off both stems at once, indicating that the cambium layer passes uninterruptedly from the one to the other; and the woody cores appeared in many cases to be as closely compacted as if they had been a single stem. It was observed that when the axes nearly coincided the outer layers of wood formed a continuous envelope over the two stems, but when they were very divergent in direction, the woody tissue was confused at the line of junction, the fibres abutting irregularly against each other. Maceration had no effect in separating the concrete stems, nor had desiccation in many cases, though occasionally cracks formed along the lines of junction from each stem shrinking to its own centre. Such fusion contrasts strikingly with what occurs in other woods, when stems are anyhow compacted together by the force of growth. The bark in such cases never peels clean off over the line of junction, but insinuates itself between the stems in a morbid and degenerate condition; nor is the woody tissue fused, but injured and stopped in its growth at the point of pressure, in one or both stems. Twisted osier stems perhaps make the nearest approach to such fusion, but the union of substance is always imperfect, as becomes very apparent on drying. In regard to the claspers, it was stated that their structure, though undeveloped, was essentially that of rootlets, and that they originate in the same way in the cortical layer—pushing outwards, on the one hand, a free extremity, and on the other, connecting themselves with the woody tissue, generally at the emergence of a medullary ray, the central cells of which appear to become condensed into a fibrous prolongation inwards of the rootlets. The occurrence of starch granules in the wood-cells was noticed as a character which, though not unknown in other cases, might still be regarded as an exceptional arrangement, to the extent at least to which it prevails in the ivy, where the deposit is most abundant, in the woody fibres both of the alburnum and duramen.

The paper was illustrated by microscopical preparations and drawings, and by specimens of stems which had coalesced in the way described.