

more than one single Minute of Motion (Part of which may probably arise from the small Uncertainty that always attends Astronomical Observation) but most commonly this Difference was wholly insensible; so that by the Help of what I observed in 1722, I presume I am able to compute the true Place of the Moon with Certainty, within the Compass of two Minutes of her Motion, during this present Year 1731, and so for the future. This is the Exactness requisite to determine the Longitude at Sea to twenty Leagues under the Equator, and to less than fifteen Leagues in the *British* Channel.

It remains therefore to consider after what Manner Observations of the Moon may be made at Sea with the same Degree of Exactness: But since our worthy Vice-President *John Hadley*, Esq; (to whom we are highly obliged for his having perfected and brought into common Use the *Reflecting Telescope*) has been pleased to communicate his most ingenious Invention of an Instrument for taking the Angles with great Certainty by Reflection, (*Vide Transact.* N^o 420.) it is more than probable that the same may be applied to taking Angles at Sea with the desired Accuracy.

II. *An Account of the Contrayerva, by Mr. William Houstoun, Surgeon in the Service of the Honourable South-Sea Company.*

CONTRAYERVA is a *Spanish* Word, signifying as much as *Herba contra* [*Venena*] or an Herb against Poisons. And as there are in all Countries

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different

different Plants to which that Virtue is ascribed, the Name of *Contrayerva* seems to have been given by the *Spaniards* to as many of them as have come under their Knowledge; for *Hernandez* has described a Species of *Granadilla* by that Name, and there are several other Roots that are commonly known by it: But far from pretending to give a History of all those Roots, I only offer a short Account of that Plant whose Root is called *Contrayerva* here in *England*, and is so well known to all that any way deal in Medicines.

The Root itself being so commonly known, it would be superfluous to describe it, I shall therefore confine myself to the Description of the Plant that produces it, which I have not hitherto met with to my Satisfaction in any Author.

Father *Plumier*, in his Book entituled, *Nova Plantarum Americanarum Genera*, describes a Genus which he calls *Dorstenia*, whereof I have found two Species in the *West-Indies*, the Roots of which are gathered and exported indifferently, as being very much alike, both in Appearance and Virtues. One of these I think may be called

Dorstenia Dentaria radice, Sphondylii folio, placenta ovali, Fig I. And the other

Dorstenia Dentariae radice, folio minus laciniato, placenta quadrangulari & undulata, Fig. II.

The first Kind seems to be the *Tuxpatli* of *Hernandez*, pag. 147. Its Roots, which are perennial, put forth in the Month of *May* (or as soon

soon as it happens to rain) each six or eight Leaves four or five Inches long, and as many broad, cut into several Segments almost as deep as the middle Rib, somewhat after the Manner of the *Sphondylium*: They stand upon Footstalks five or six Inches long; and from the Middle of them come forth other Footstalks somewhat longer, sustaining each a strange Sort of Body, flat, and situated vertically, or with one Edge uppermost, which I have called *Placenta*. In this Species it is of an oval Figure, with its longer Axis parallel to the Footstalk. One side of it is smooth and green like the outside of the *Calix* in other Plants; but from the other arise a great many small yellow coloured Apices; and after they are gone, many small roundish Seeds begin to appear, which when ripe are somewhat like those of *Gromwell* or *Lithospermon*. It grows in the Kingdom of *New Spain*, near old *Vera Cruz*, on the high Ground, by the Side of the River.

The second Kind has much the same Number of Leaves growing from each Root, as the former; but of a different Figure, for some of them are entire, and shaped like those of a *Violet*, others angular, like Leaves of *Jay*, and some almost as much divided as the Leaves of the common *Maple*. They are thin, and of a dark green Colour, and smooth, or have only a few scarce perceptible Hairs on the Back. The Pedicles that sustain the Flowers arise immediately from the Root as in the other Species, and attain to the same Height of six or eight Inches. But the *Placenta* which sustains the Flowers, is in this Kind *Quadrangular*, waved about the Edges, and broader transversly than

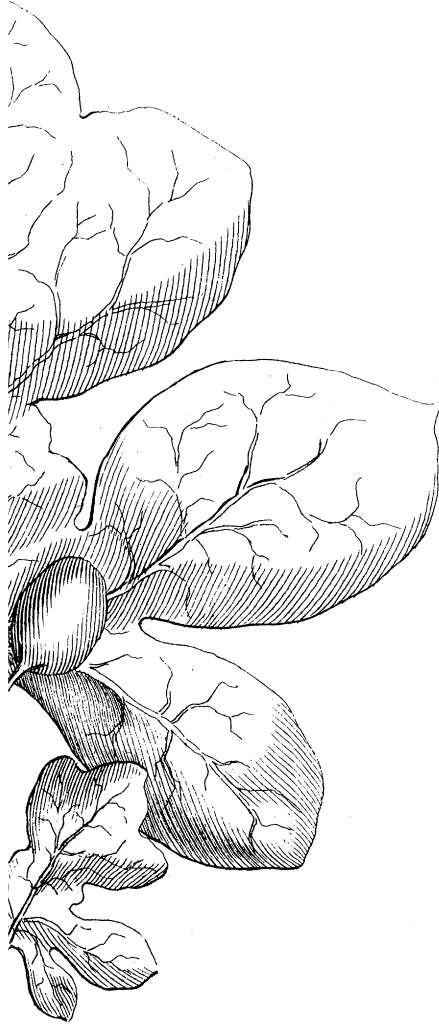
than vertically. Yet the Flowers and Seeds themselves are perfectly the same as in the other. This second Kind grows plentifully on the high rocky Grounds about *Campechy*, where I gathered it in Perfection in the Beginning of *November*, 1730.

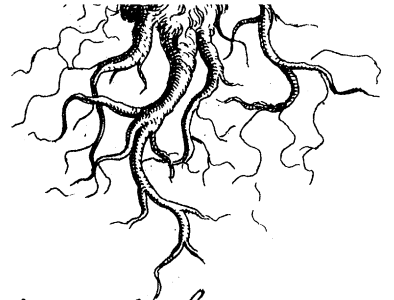
I cannot guess why Father *Plumier* has called this a monopetalous Plant; for that which he calls the *Petalum*, and I the *Placenta*, is of a green Colour, and (which is of more Consequence) sustains the Seeds when ripe, and never envelops the Organs of Generation when young; so that I think it can by no Means be called a *Petalum*, nor even properly a *Calix*, and therefore I have given it the Name of *Placenta*, whose Office it certainly performs.

I have not been able to observe exactly the Structure of the Organs of Generation, because of their excessive Smallness; but they appear to the naked Eye as they are represented in the Figures I have given of them, and in *Plum. N. G. Tab. 8*. The *Dorstenia Sphondylii folio Dentariæ radice*, of *Plumier*, differs from both of mine; for in his Drawings done by Order of the late King of *France*, whereof I have seen a Copy in the Collection of the late Dr. *Sherard*, the Leaves are represented serrated, the *Placenta* quadrangular, and the Roots consisting of several Knobs tied together Lengthways. From which last Particular, I am perswaded that the Root of that Species is the *Drakena Radix*, mentioned by *Clusius* in his *Exoticks*, pag. 83.



Fig. I





DORSTENIA *Dentaria radice, Sphondylii folio, placenta ov.*

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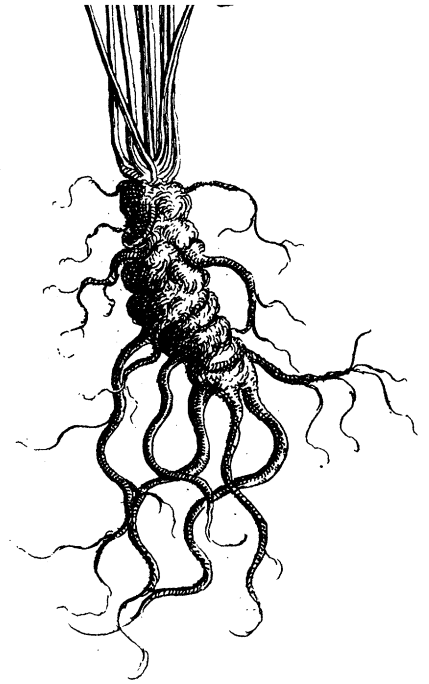
ita ovale.

J. Mynde sc.





Fig. I



DORSTENIA *Dentariae radice, folio minus laciniato, placenta quadrang.*



J. Mynde sc.

trangulari et undulata.

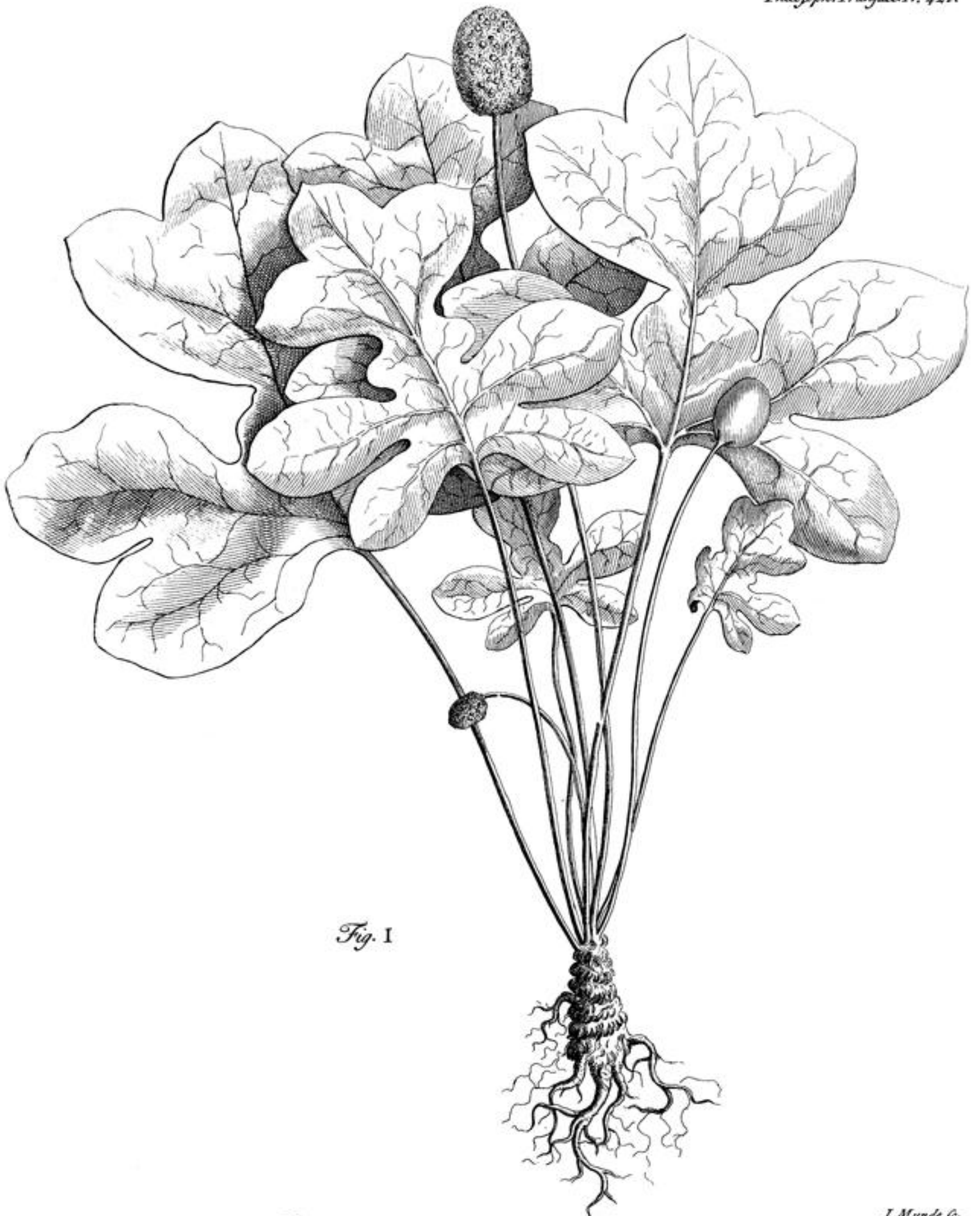


Fig. 1

DORSTENIA *Dentaria radice, Sphondyli folio, placenta ovale.*

J. Mynde. sc.



Fig. II

J. Mynde sc.

DORSTENIA Dentariae radice, folio minus laciniato, placenta quadrangulata et undulata.