

V. *Description of a Plant yielding Afa foetida. In a Letter from John Hope, M. D. F. R. S. to Sir Joseph Banks, Bart. P. R. S.*

Read December 9, 1784.

TO SIR JOSEPH BANKS, BART. P. R. S.

S I R,

Edinburgh, August 18, 1784.

I BEG you will do me the honour of presenting the inclosed account of the *Afa foetida*, and the botanical description of the plant, with the drawings, to the Royal Society.

I have the honour of being, with much respect and esteem, &c.

J O H N H O P E.

A S A F O E T I D A.

PLANTA umbellifera, tripedalis, erecta, ramosa, glauca,
flore luteo.

Radix perennis.

Folia radicalia fex, procumbentia, trilobo-ovata, multoties pinnatim divisa; foliolis incis, subacutis, sub-decurrentibus; petiolo communi superne plano, linea elevata longitudinaliter per medium decurrente.

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Caulis.

Caulis bipedalis, erectus, teretiussculus, annuus, leviter striatus, glaber, nudus præter unam circa medium foliorum imperfectorum conjugationem; petiolo membranaceo, concavo.

Rami nudi, patuli; quorum tres inferi, alterni, sustinentur singuli folii imperfecti petiolo membranaceo concavo.

Quatuor intermedii verticillati sunt. Supremi ex apice caulis octo, quorum interni erecti.

Omnes hi rami summitate sustinent umbellam compositam sessilem terminalem, et præterea 3—6 ramulos externe positos, umbellas compositas ferentes.

Hoc modo, rami inferiores sustinent 5, raro 6 ramulos; intermedii 3 vel 4; superiores 1 et 2.

CAL. *Umbella universalis* radiis 20—30 constat.

———— *partialis* flosculis subsessilibus 10—20.

Umbella composita sessilis convexo-plana.

———— pedunculata hæmispherica.

Involucrum universale nullum.

———— *partiale* nullum.

Perianthium proprium vix notabile.

COR. *universalis* uniformis.

Flosculi umbellæ sessilis fertiles.

———— pedunculatæ plerumque abortiunt.

propria petalis quinque æqualibus, planis, ovatis: primopatulis, dein reflexis, apice ascendente.

STAM. *Filamenta* 5, subulata, corolla longiora, incurvata. *Anthæræ* subrotundæ.

PIST. *Germen* turbinatum, inferum.

Styli duo, reflexi.

Stigmata apice incrassata.

PER. nullum : fructus oblongus, plano-compressus, utrinque 3 lineis elevatis notatus est.

SEM. duo, oblonga, magna, utrinque plana, 3 lineis elevatis notata.

Planta odorem alliaceum diffundit. Folia, rami, pedunculi, radix, truncus, secti succum fundunt lacteum, sapore et odore *Afæ foetidæ*.

THOUGH *Afa foetida* has been used in medicine for many ages, having been introduced by the Arabian physicians near a thousand years ago ; yet there was no satisfactory account of the plant which yielded it, till KÆMPFER published his *Amœnitates Exoticæ* about seventy years ago.

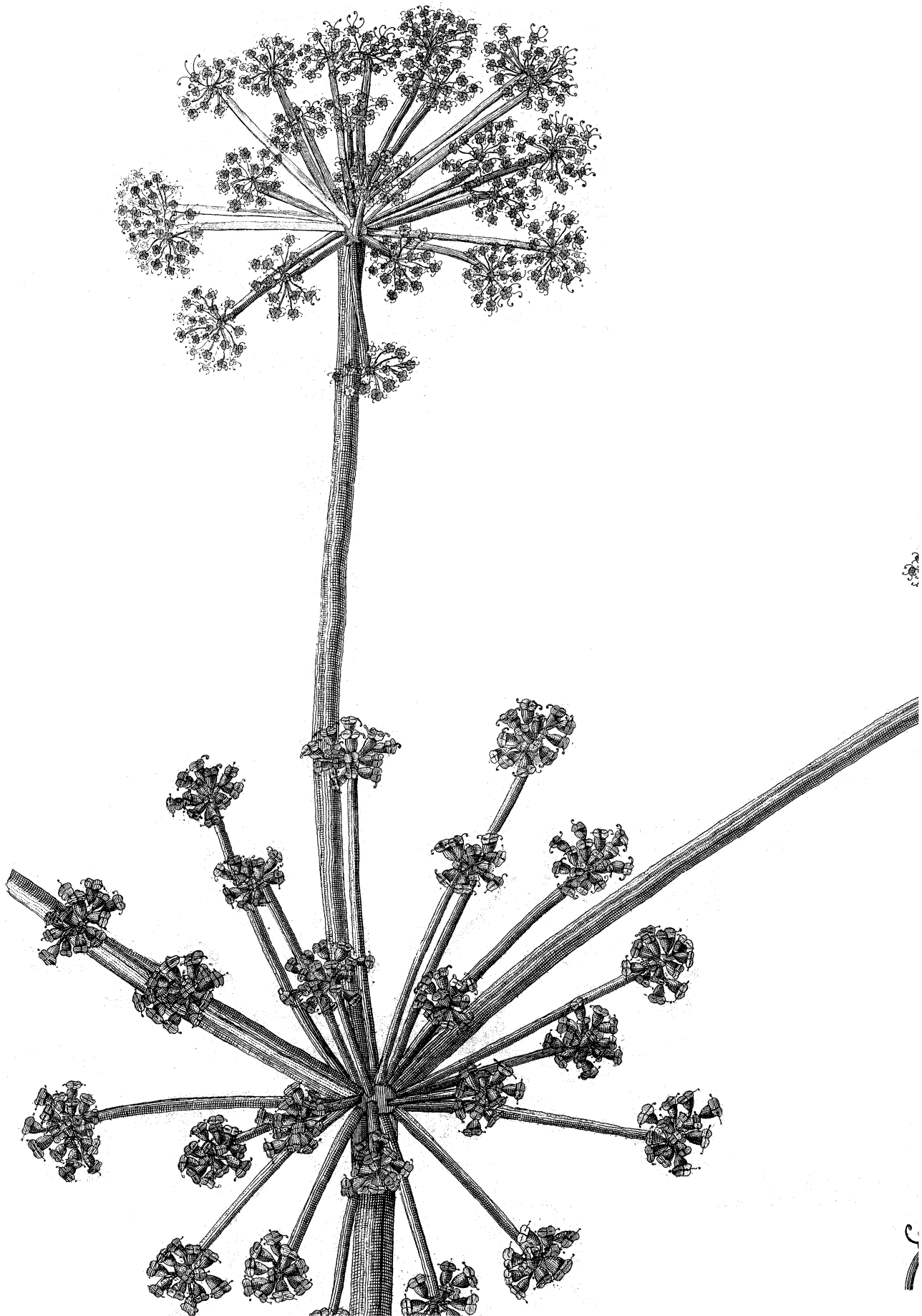
KÆMPFER, towards the end of the last century, travelled over a great part of Asia, and was in Persia, and upon the spot where the *Afa foetida* is collected. He gives a full account of the manner of collecting it. He describes the plant ; and also gives a figure of it, differing in many respects from those which I now present to the Society *.

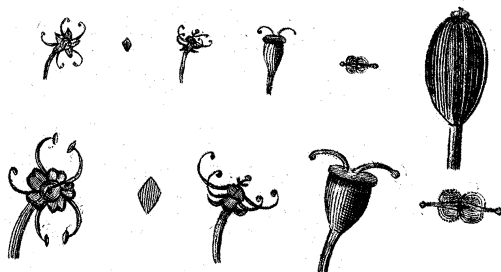
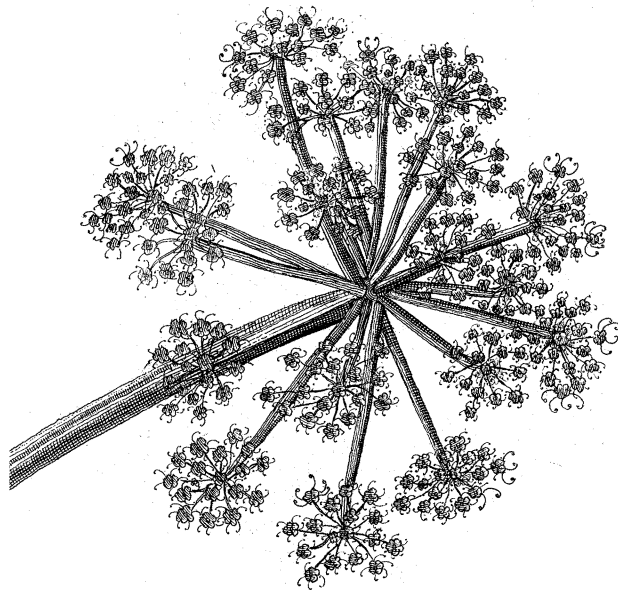
Six years ago, I received from Dr. GUTHRIE, of St. Petersburg, F. R. S. two roots of the *Afa foetida*, with the following card from Dr. PALLAS, addressed to Dr. GUTHRIE :

“ Dr. PALLAS's compliments to Dr. GUTHRIE ; he sends “ him two roots of the *Ferula Afa foetida*, a plant which he

* Probably KÆMPFER's *Afa foetida* Plant is a different species from that described by Dr. HOPE in this paper. KÆMPFER was himself upon the mountains where the drug is collected, and his fidelity in describing, as well as delineating, has not hitherto been impeached. *Sanguis Draconis*, and some other gums, are indifferently the produce of various species of plants ; and why may not *Afa foetida* be similarly circumstanced ? JOS. BANKS.

“ thinks





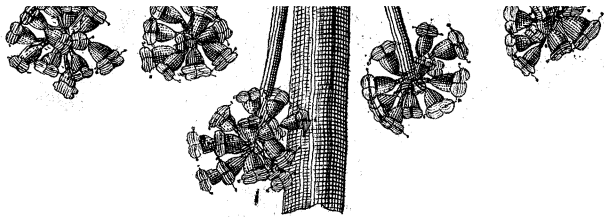
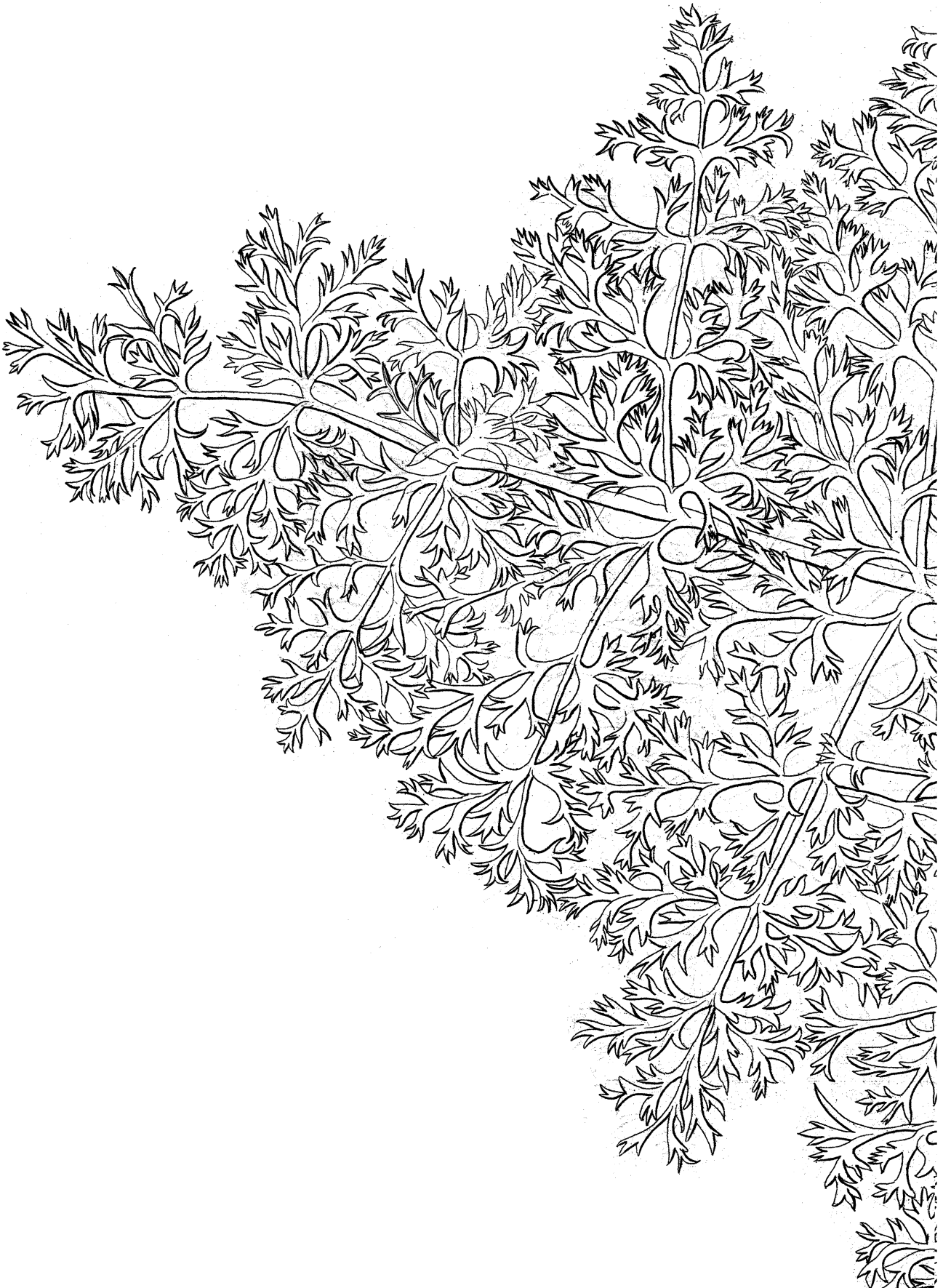
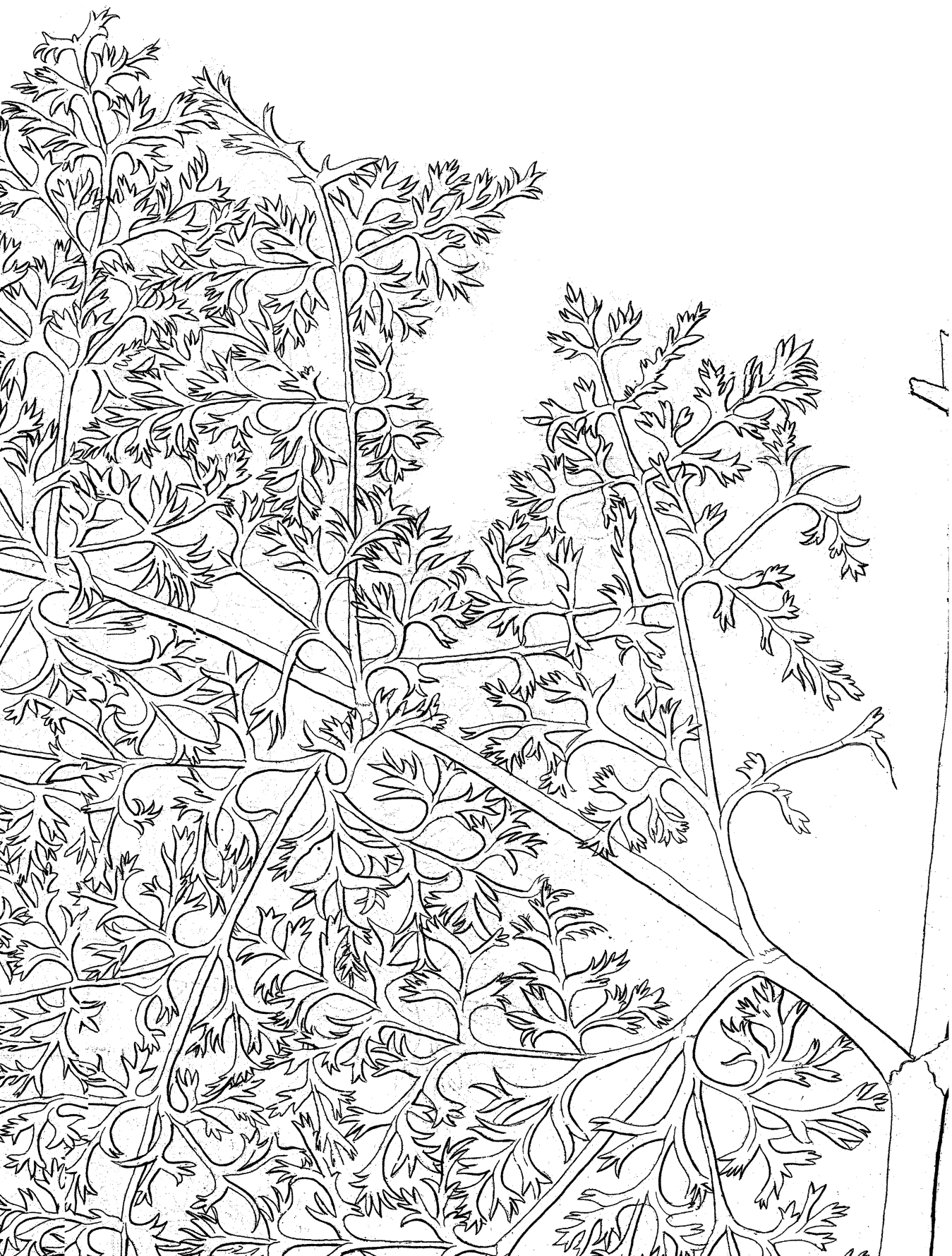
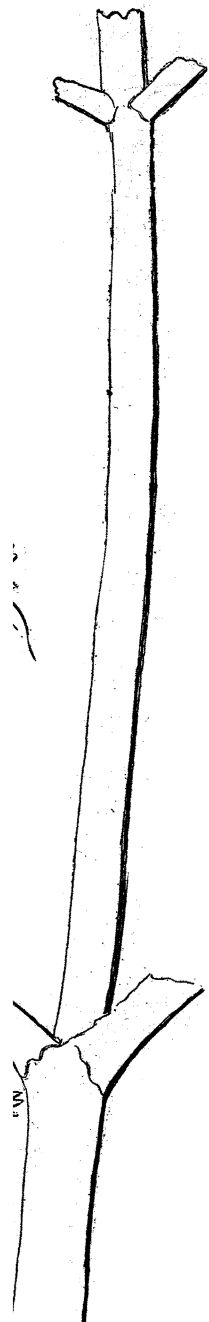




Fig. 10.













“ thinks never was cultivated in any European garden, and
“ which nobody has been so fortunate as to raise from seed but
“ himself, though the seeds sent to the Academy from the
“ mountains of Ghilan in Persia had been distributed among
“ several curious persons.”

Both these roots were planted in the open ground, in the Botanic Garden at Edinburgh; one died; the other after some time did well, and last summer flowered and produced seed. I had an accurate drawing of the plant made by Mr. FIFE, which I now have the pleasure of laying before the Society. It expresses very well the general habit of the plant, which was of a pale sea-green colour, and grew to the height of three feet. The stem is deciduous, but the root is perennial. Every part of the plant, when wounded, poured out a rich milky juice, resembling in smell and taste *Afa foetida*; and at times a smell resembling garlick, such as a faint impregnation of *Afa foetida* yields, was perceivable at the distance of several feet.

In Persia, at the proper season, the root is cut over once and again; from the incisions there flows a thick juice like cream, which, thickened, is the *Afa foetida*.

I have only further to observe, that as the plant grows in the open air, without protection, and even in an unfavourable season produced a good deal of seed, and as the juice seems to be of the same nature with the officinal *Afa foetida*, there is some reason to hope, that it may become an article of cultivation in this country of no inconsiderable importance.

Edinburgh, Jan. 1783.



