CONIUM MACULATUM. COMMON HEMLOCK.

SYNONYMA. Cicuta. *Pharm. Lond. & Edin. Hal. Stirp. Helv.* 766. Cicuta major. *Bauh. Pin.* 160. Cicuta vulgaris major, *Park.* 933. Cicutaria vulgaris. *Clus. Hiſt.* 2. 200. Cicuta. *Gerard*, 1061. *Raii Hiſt.* vol. 1. 451. *Synop.* p. 215. *Stoerck. Suppl.* Conium Maculatum. *Scop. Flor. Carn.* p. 207. *Bergius Mat. Med.* 192. *Curtis Flor. Lond. Withering Bot. Arrang.* 277. *Relhan Flor. Cant.* 112. Κωνειον *Græcor.*

Claſs Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 336.

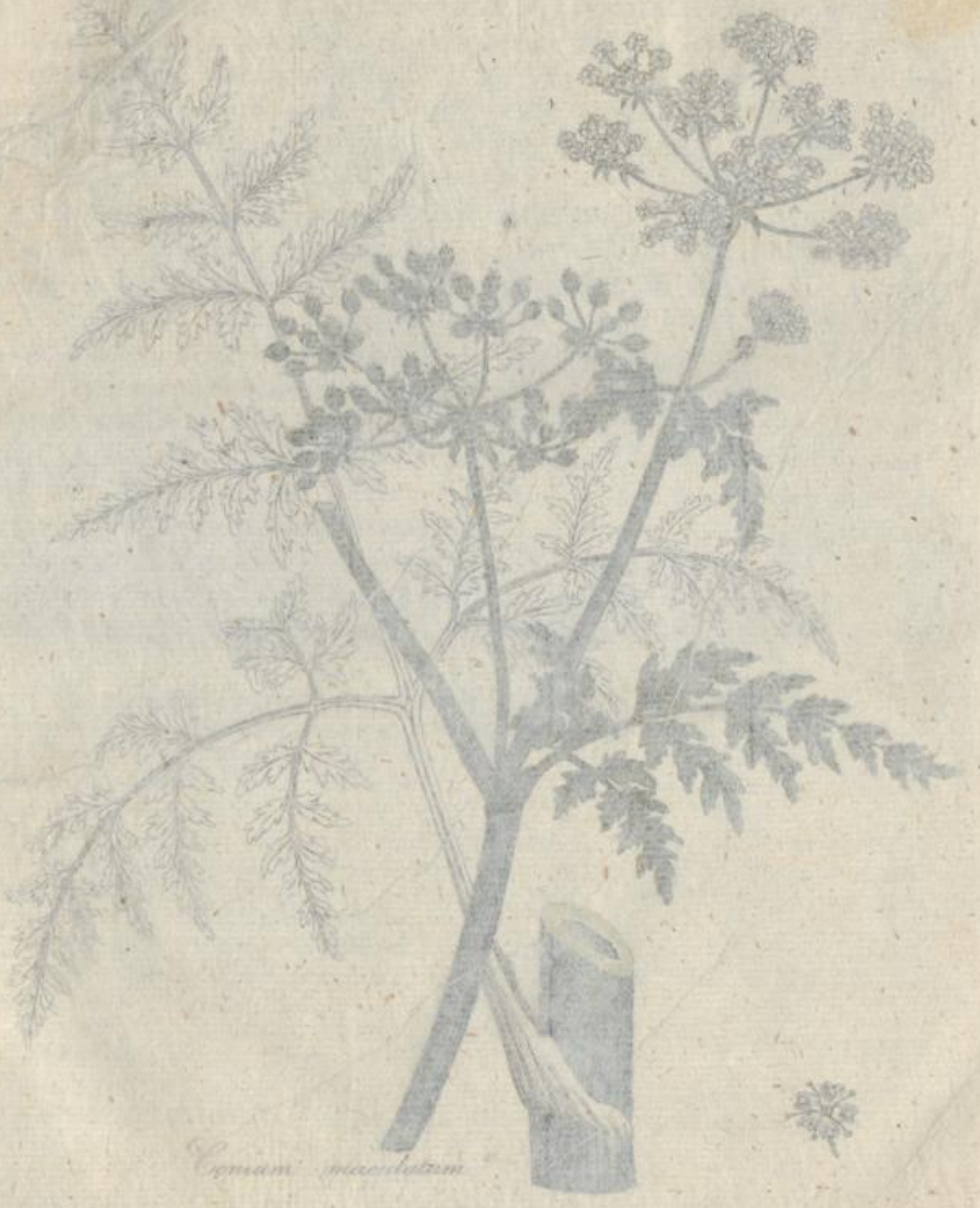
Eſſ. Gen. Ch. *Involucella* dimidiata, ſubtriphylla. *Fructus* ſubgloboſus, 5-ſtriatus, utrinque crenatus.

Sp. Ch. C. ſeminibus ſtriatis.

THE root is biennial, tapering, ſometimes forked, eight or ten inches long, and about the thickneſs of a finger: the ſtalk is five or ſix feet high, round, ſhining, beſet with brown and purpliſh ſpecks; towards the top branched and ſtriated; near the bottom about three inches in circumference, and covered with a bluiſh exudation, appearing like a fine powder: the lower leaves are very large, tripinnated, of a ſhining green colour, ſtanding upon long, ſtriated, concave footſtalks, which proceed from the joints of the ſtem; the upper and ſmaller leaves are bipinnated, and placed at the diviſions of the branches: the flowers are produced in umbels, which are both univerſal and partial, and compoſed of ſeveral ſtriated radii. The univerſal involucrum ‡ conſiſts of five or ſeven leaves, theſe are lanceolated, whitiſh at the margin, and bent downwards; the partial

‡ The calyx of umbelliferous plants is termed involucrum, and may be univerſal, partial, or proper, according as it is placed at the univerſal umbel, partial umbel, or flower.

involucrum



Cynanchum maculatum

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Class Pentandria. *Ord.* Digynia. *L. Gen. Plant.* 336.

Eſſ. Gen. Ch. Involucella ſimidiata, ſubtriphylla.† *Fructus* ſubglobosus, 5-ſtriatus, utrinque crenatus.

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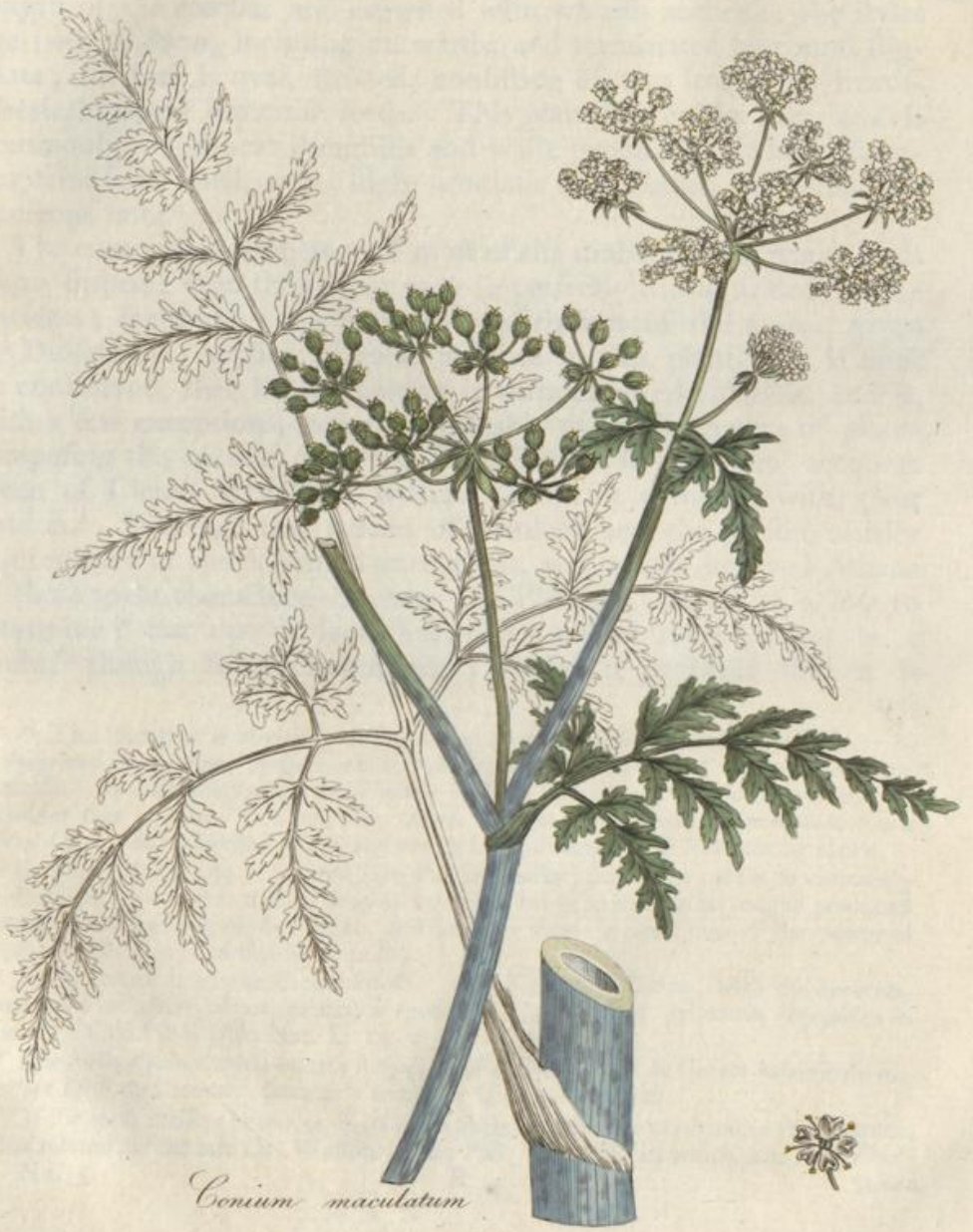
involucrum



Conium maculatum

Publish'd by Dr Woodville May 1. 1790.

involucrum is compoſed of three or four leaves, which are placed on the outer ſide of the radial ſtalk; the petals are five, oval, white, and curl inwards at their points; the ſtamina are five, white, about the length of the corolla, and crowned with whitiſh antheræ; the ſtyles are two, filiform, inclining outwards, and terminated by round ſtigmata; the fruit is oval, ſtriated, conſiſting of two irregularly hemiſpherical ſtriated browniſh ſeeds. This plant flowers in July, and is commonly found near dunghills and waſte grounds.[a] It has a peculiar faint fetid ſmell, and a ſlight aromatic herbaceous, and ſomewhat nauſeous taſte.[b]

The common reſemblance of moſt of the umbelliferous plants leads us to ſuſpect, that they were very imperfectly diſtinguiſhed by the ancients; for though the botanical deſcription of the Κωνειον, given by Dioſcorides, applies in great meaſure to this plant,[c] yet it muſt be conſidered, that his deſcription is without diſcrimination, and is, with a few exceptions, equally applicable to all the genera of plants compoſing the natural order of *Umbelliferæ*: ſo that the accounts given of Cicuta by ancient writers, ſhould be admitted with great caution.[d] Whether this ſpecies of hemlock was the poiſon uſually adminiſtered at the Athenian executions, and which deprived Athens of thoſe great characters, Socrates and Phocion, we are at a loſs to determine;[e] but that it is a deleterious poiſon there cannot be a doubt,[f] though ſome circumſtances render it probable that it is leſs

[a] "The Hemlock is obviouſly diſtinguiſhed from our other umbelliferous plants by its *large* and *ſpotted ſtalk*, by the dark and *ſhining green colour of its bottom leaves*, and particularly by their *diſagreeable ſmell* when bruiſed, and which, according to Stoerck, reſembles that of mice." *Curt. Flor. Lond.* The Chærophyllum bulboſum has a ſpotted ſtem, but its ſwelled joints, and rough ſeeds, diſtinguiſh it from the hemlock.

[b] Bergius. M. M. 194. Stoerck ſays, that the milky juice of the root is ſo extremely acrid and deleterious that a ſmall drop or two of it being applied to his tongue produced great pain and ſwelling of that organ, and for ſome time deprived him of the power of ſpeech.——In anſwer to this ſee note (ε).

[c] Haller refers it to the Cicuta viroſa. [d] The word Cicuta, with the ancients, ſeemed not indicative of any particular ſpecies of plant, but of poiſonous vegetables in general. Vide Plinii Hiſt. Nat. L. 14. c. 5. L. 25. c. 13.

[e] For further information on this ſubject, conſult Steger Diſſ. de Cicuta Athenienſium. Ehrhart Diſſ. de Cicuta. Joannis Viventii de Cicuta comment.

[f] Of the moſt deciſive inſtances of its fatal effects, which have occurred in this country, is that related by the late Dr. Watſon in the Phil. Tranſact. in which it is fully aſcer-

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leſs powerfully ſo than is generally imagined.[g] The ſymptoms produced by Hemlock, when taken in immoderate doſes, are related by various authors, the principal of which have been collected by Haller and others, and ſtated in the following words: "Intus ſumpta facit anxietates, cardialgias, vomitus, appetitum proſtratum diutur-

tained by him, that two Dutch ſoldiers, at Waltham Abby, were killed in a very ſhort time by eating this plant. Other proofs of this ſort are given by Heins, (Pharm. rat. p. 370) which happened to ſome boys at Dreſden. Saml. rur Geſchichte von Ober. Sachs. III. p. 221. Scaliger, Subtil. Exerc. 152. Amatus Act. Cur. 98. Cent. V. See alſo the caſes mentioned by Wolf in Comment. lit. Nor. anno 1740 and 1749.—Wepfer. Cicut. p. 71. 312. Braſſavola Examen. omn. ſimp. We may alſo notice the following from Theophraſtus, (L. IX. c. 17.) Thraſyas Mantineenſis remedium a ſe inventum fuiſſe gloriabatur, quod abſque dolore vitam abrumperet, ex Cicuta & Papaveris ſucco miſtum, &c. vide Hal. Stirp. Helv. p. 338.—to which work we are obliged for many of the facts juſt recited. Although ſheep and ſome other animals eat this plant with impunity, yet to many it is ſtrongly poiſonous. Three ſpoonfuls of the juice killed a cat in leſs than a quarter of an hour. Rozier, Tableau, tom. i. 1773. Upon opening thoſe animals to which it proved fatal, inflammation of the ſtomach and inteſtines was diſcovered. Harder apiar. Obſ. 24 & 25. Wepfer cicut. p. 334. And we may here add, what we noticed formerly under Belladonna, that vinegar has been found the moſt uſeful in obviating the effects of this poiſon; and that by macerating or boiling this plant in vinegar, it becomes totally inert. Lindeſtolpe de venenis.

[g] Reſpecting the root of Hemlock, we have the following inſtances, ſhewing unequivocally that it does not poſſeſs any noxious power whatever. Ray relates, (Phil. Tranſ. XIX. vol. p. 634. that the ſkilful herbaliſt, Mr. Petiver, ate half an ounce of the root of Hemlock, and that Mr. Henly, in the preſence of Mr. Petiver, ſwallowed three or four ounces, without experiencing any remarkable effect; and theſe facts ſeem confirmed by the later experiments of Mr. Alchorne and Mr. Timothy Lane, neither of whom perceived any ſenſible effect on eating this root. Mr. Curtis ſays, Mr. Alchorne "aſſures me, that he has tried this in every ſeaſon of the year, and in moſt parts of our iſland, without finding any material difference: and Mr. T. Lane informs me, that he alſo, with great caution, made ſome experiments of the like kind, and in a ſhort time found he could eat a conſiderable part of a root, without any inconvenience; after this he had ſome large roots boiled, and found them as agreeable eating at dinner with meat as carrots, which they in taſte ſomewhat reſembled; and as far as his experience, joined with that of others, informed him, the roots might be cultivated in gardens, and either eaten raw like celery, or boiled as parſeneps or carrots." (Flor. Lond.) And Murray obſerves, Non tamen tantopere eſſe Conium reformidandum, ut quidam exiſtimant, patet inde, quod etiam infantibus tenellis impune exhibitum, nec fœtum affecerit ſub matris graviditate datum, nec gravidam matrem, nec detrimentum attulerit largior et per protractius tempus, ad drachmas ſex extracti uſque ſupraque intra nychthemerum, uſus. Stöerck, vide Murray, Ap. Med. vol. 1. p. 216.—Quin & exſtant exempla vetuſtiora, ingeſtam herbam vel ſuccum majori adeo quantitate ſubinde tam homines quam bruta impune tuliſſe. Sic Plinius caulem viridem comedi, Sextus Empericus feminam producit, quæ drachmam unam ſucci abſque noxa cepit. Murray, l. c.

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nam, convulſiones, cæcitatem, ſopores," (l. c.) " vertiginem, dementiam, mortemque ipſam." Murray App. Med. vol. 1. p. 215.— Cicuta ſeems to have been, both by the Greek and Arabian phyſicians, very generally employed as an external remedy for tumours, ulcers, and cutaneous eruptions; it was alſo thought to have the peculiar power " frangere ſtimulum venereum;"[h] and this circumſtance is the more remarkable, as Stoerck, Bergius, and others, recommend its internal uſe for complaints of a contrary nature, and adduce proofs of its aphrodiſiacal powers.[i]

Baron Stoerck was undoubtedly the firſt phyſician, who brought Hemlock into repute as a medicine of extraordinary efficacy, by his publication in 1760; and his claim to this diſtinction is the ſtronger, as his facts only have ſince been able to ſupport its reputation to any very conſiderable extent; nay it never ſucceeded ſo well as when under his own direction, or confined to the neighbourhood in which he reſided,[k] and to the practice of thoſe phyſicians with whom he lived in habits of intimacy and friendſhip.* To enumerate all the diſeaſes in which he ſets forth the powerful efficacy of Cicuta, in four ſucceſſive books on the ſubject, would be to give a catalogue of moſt of the chronic diſeaſes with which human nature is afflicted. And Bergius, though he experienced no advantage by employing in true cancerous affections, ſtill recommends its uſe in " Ulcera ſordida & ſiphilitica, Scabies, Morbi cutis, Gonorrhoea, Leucorrhœa, Phthiſis, Impotentia virilis, Rheumatiſmus chronicus, Scrophula;" and he conſiders its *Virtus* to be " narcotica, reſolvens, ſuppurationem promovens, diuretica." To eſtimate with preciſion the medicinal utility of Hemlock is no very eaſy taſk. Had Dr. Stoerck's publi-

[h] Aretæus de Morb. Acut. L. 2. c. 11. Et incrementa mammarum & teſtium cohibere, *Anaxilaus* & *Dioſcorides*.

[i] Impotentiam virilem ſub uſu Conii curatam obſervavi, in viro quodam pluſquam quadrigenario, qui omnem erectionem penis perdiderat, poſtinde tamen plures liberos procreavit. Bergius Mat. Med. p. 195. — Dr. Cullen, however, never diſcovered its effects in this way.

[k] The general inefficacy of Hemlock experienced in this country, induced phyſicians at firſt to ſuppoſe that this plant, in the environs of Vienna and Berlin, differed widely from ours, and this being ſtated to Dr. Stoerck, he ſent a quantity of the extract, prepared by himſelf, to London, but this was found to be equally unſucceſsful, and to differ in no reſpect from the Engliſh extract. * Collin, Locher, Quarin, Leber, &c.

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cations upon this ſubject contained but few and leſs extraordinary proofs of its good effects in certain obſtinate and painful diſeaſes, the virtues of cicuta might have been held in greater eſtimation than they actually are:[l] while thoſe authors, who have as generally condemned this medicine as uniformly uſeleſs or dangerous, ſeem to have done it equal injuſtice.[m] Although we have not in this country any direct facts, like thoſe mentioned by Stoerck, proving that inveterate ſcirrhuſes, cancers, ulcers, and many other diſeaſes hitherto deemed irremediable, were completely cured by the Cicuta; we have, however the teſtimonies of ſeveral eminent phyſicians, ſhewing that ſome complaints, which had reſiſted other powerful medicines, yielded to Hemlock;[n] and that even ſome diſorders, which, if not really cancerous, were at leaſt ſuſpected to be of that tendency, were greatly benefited by this remedy. In chronic rheumatiſms, ſome glandular ſwellings, and in various fixed and periodical pains, the cicuta is now very generally employed; and from daily experience, it appears in ſuch caſes to be a very efficacious remedy. It has alſo been found of ſingular uſe in the chincough.[o] We cannot therefore but conſider this plant an important acquiſition to the Materia Medica. Externally the leaves of hemlock have been variouſly applied with advantage to ulcers, indurated tumours, and gangrenes.

Much has been ſaid reſpecting the variable nature of this plant, the time of collecting it, the part which ought to be preferred, and the beſt manner of preparing it for medical uſe; but as theſe circumſtances

[l] That it ſhould be of ſome eſtimation in many of the diſeaſes, in which it is recommended by Stoerck, appears from the numerous authorities cited by Murray, who concludes with theſe words: "Et ſic quidem in multis pertinaciſſimis morbis liquandi ſpiſſa, obſtructa reſerandi et ſanginem depurandi, efficacia auxilio fuit." l. c.

[m] Vide Andree's Obſervations on Stoerck's Pamphlet, *anno* 1761. Lange Diſſ. dubia Cicutæ vexata. *anno* 1764. De Haen Epiſt. de cicuta, *anno* 1765. Bierken *(Tal om Kreaſiſkador)* who, with Bergius, ſays, that in all cancers it does miſchief.

[n] Among thoſe we may mention the late Drs. Fothergill and Rutty. Vide Med. Obſ. & Inquir. vol. 3.—alſo in the 5th vol. the former gives an account of painful affections of the face, which he attributes to cancerous acrimony, removed by the uſe of cicuta.—Dr. Cullen ſays, "I have found it in ſeveral caſes (of cancer) to relieve the pains and mend the quality of the matter proceeding from the ſore, and even to make a conſiderable approach towards healing it." Mat. Med. vol. 2. 266. Several others inſtance its good effects in glandular diſeaſes, and Mr. Hunter commends its uſe in ſyphilis.

[o] Dr. Butter on the Chincough.

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ſeem only to produce a mere variation in the ſtrength of the medicine, we conceive ſuch pharmaceutical inquiries to be of very little importance, requiring only a proportionate adjuſtment of the doſe, which, under the direction of a ſkilful practitioner, will always be regulated by its effects only, beginning with a few grains of the extract or powder, and increaſing it daily [p] till a ſlight vertigo or other ſymptoms manifeſt the ſufficiency of the doſe: and unleſs this method has been purſued, the medicine cannot be ſaid to have had an efficient trial. "An extract from the ſeeds is ſaid to produce giddineſs ſooner than that from the leaves. Hence, while both the London and Edinburgh Colleges have given a place to the ſuccus ſpiſſatus cicutæ, into the pharmacopœia of the latter an extractum ſeminum cicutæ is alſo introduced."[q]

[p] This ſhould alſo be attended to on recommencing with a freſh parcel of the medicine, as it may differ very materially from the former preparation uſed; of this Dr. Cullen gives a remarkable inſtance, ſtrongly evincing the neceſſity of ſuch a precaution, l. c. [q] Duncan's Edin. New Diſ.

The powder of the dried leaves of Hemlock ſeems to act with more certainty, and is more to be depended upon than the extract; great caution however is required in drying and preſerving theſe leaves. Dr. Withering recommends the following method, which appears to us extremely proper: "Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little leaves, and throw away the leaf ſtalks. Dry theſe ſelected little leaves in a hot ſun, or in a tin dripping pan or pewter diſh before the fire. Preſerve them in bags made of ſtrong brown paper, or powder them and keep the powder in glaſs vials, in a drawer or ſomething that will exclude the light, for the light ſoon diſſipates the beautiful green colour, and with its colour the medicine loſes its efficacy. From 15 to 25 grains of this powder may be taken twice or thrice a day. I have found it particularly uſeful in chronic rheumatiſms, and alſo in many of thoſe diſeaſes which are uſually ſuppoſed to ariſe from acrimony. The nature of this book does not allow minute details of the virtues of plants, but I can aſſure the medical practitioner, that this is well worth his attention." Bot. Arrang. 2d Ed. p. 280.

No. 5. S DAPHNE MEZEREUM.