THE LOVES OF THE PLANTS.

CANTO III.

AND now the Goddess sounds her silver shell,
And shakes with deeper tones the inchanted dell;
Pale, round her grassy throne, bedew'd with tears,
Flit the thin forms of Sorrows, and of Fears;
Soft Sighs responsive whisper to the chords,
And Indignations half-unsheath their swords.

"Thrice round the grave CIRCÆA prints her tread,
And chaunts the numbers, which disturb the dead;
Shakes o'er the holy earth her sable plume,
Waves her dread wand, and strikes the echoing tomb!
—Pale shoot the stars across the troubled night,
The timorous moon withholds her conscious light;
Shrill scream the famish'd bats, and shivering owls,
And loud and long the dog of midnight howls!—

Circæa. l. 7. Enchanter's Nightshade. Two males, one female. It was much celebrated in the mysteries of witchcraft, and for the purpose of raising the devil, as its name imports. It grows amid the mouldering bones and decayed coffins in the ruinous vaults of Sleaford-church in Lincolnshire.[1] The superstitious ceremonies or histories belonging to some vegetables have been truly ridiculous; thus the Druids are said to have cropped the Misletoe with a golden axe or sickle; and the Bryony, or Mandrake, was said to utter a scream when its root was drawn from the ground; and that the animal which drew it up became diseased and soon died: on which account, when it was wanted for the purposes of medicine, it was usual to loosen and remove the earth about the root, and then to tie it by means of a cord to a dog's tail, who was whipped to pull it up, and was then supposed to suffer the impiety of the action. And even at this day bits of dried root of Peony are rubbed smooth, and strung, and sold under the name of Anodyne necklaces, and tied round the necks of children, to facilitate the growth of their teeth! add to this, that in Price's History of Cornwall,[2] a book published about ten years ago, the Virga Divinatoria, or Divining Rod, had a degree of credit given to it. This rod is of hazle, or other light wood, and held horizontally in the hand, and is said to bow towards the ore when[e]ver the Conjurer walks over a mine. A very few years ago, in France, and even in England, another kind of divining rod has been used to discover springs of water in a similar manner, and gained some credit. And in the very last year,[3] there were many in France, and some in England, who underwent an enchantment without any divining rod at all, and believed themselves to be affected by an invisible agent, which the Enchanter called Animal Magnetism![4]

—Then yawns the bursting ground!—*two* imps obscene
Rise on broad wings, and hail the baleful queen;
Each with dire grin salutes the potent wand,
And leads the sorceress with his sooty hand;
Onward they glide, where sheds the sickly yew
O'er many a mouldering bone its nightly dew;
The ponderous portals of the church unbar,—
Hoarse on their hinge the ponderous portals jar;
As through the colour'd glass the moon-beam falls,
Huge shapeless spectres quiver on the walls;
Low murmurs creep along the hollow ground,
And to each step the pealing ailes resound;
By glimmering lamps, protecting saints among,
The shrines all tremble as they pass along,
O'er the still choir with hideous laugh they move,
(Fiends yell below, and angels weep above!)
Their impious march to God's high altar bend,
With feet impure the sacred steps ascend;
With wine unbless'd the holy chalice stain,
Assume the mitre,[5] and the cope[6] profane;

To heaven their eyes in mock devotion throw,
And to the cross with horrid mummery bow;
Adjure by mimic rites the powers above,
And plite alternate their Satanic love.

Avaunt, ye Vulgar! from her sacred groves
With maniac step the Pythian[7] LAURA moves;
Full of the God her labouring bosom sighs,
Foam on her lips, and fury in her eyes,
Strong writhe her limbs, her wild dishevell'd hair
Starts from her laurel-wreath, and swims in air.—
While *twenty* Priests the gorgeous shrine surround
Cinctur'd with ephods,[8] and with garlands crown'd,

Laura. l. 40. Prunos. Lauro-cerasus. Twenty males, one female. The Pythian priestess is supposed to have been made drunk with infusion of laurel-leaves when she delivered her oracles. The intoxication or inspiration is finely described by Virgil. Æen. L. vi.[9] The distilled water from laurel-leaves is, perhaps, the most sudden poison we are acquainted with in this country. I have seen about two spoonfuls of it destroy a large pointer dog in less than ten minutes. In a smaller dose it is said to produce intoxication: on this account there is reason to believe it acts in the same manner as opium and vinous spirit; but that the dose is not so well ascertained. See note on Tremella. It is used in the Ratafie[10] of the distillers, by which some dram-drinkers have been suddenly killed. One pint of water, distilled from fourteen pounds of black cherry stones bruised, has the same deleterious effect, destroying as suddenly as laurel-water. It is probable Apricot-kernels, Peach-leaves, Walnut-leaves, and whatever possesses the kernel-flavour, may have similar qualities.

Contending hosts and trembling nations wait
The firm immutable behests of Fate;
—She speaks in thunder from her golden throne
With words *unwill'd,* and wisdom not her own.

So on his NIGHTMARE through the evening fog
Flits the squab Fiend o'er fen, and lake, and bog;
Seeks some love-wilder'd Maid with sleep oppress'd,
Alights, and grinning sits upon her breast.
—Such as of late amid the murky sky
Was mark'd by FUSELI's poetic eye;[11]
Whose daring tints, with SHAKESPEAR's happiest grace,
Gave to the airy phantom form and place[12] —
Back o'er her pillow sinks her blushing head,
Her snow-white limbs hang helpless from the bed;
While with quick sighs, and suffocative breath,
Her interrupted heart-pulse swims in death.
—Then shrieks of captured towns, and widows' tears,
Pale lovers stretch'd upon their blood-stain'd biers,
The headlong precipice that thwarts her flight,
The trackless desert, the cold starless night,

And stern-eye'd Murderer with his knife behind,
In dread succession agonize her mind.
O'er her fair limbs convulsive tremors fleet,
Start in her hands, and struggle in her feet;
In vain to scream with quivering lips she tries,
And strains in palsy'd lids her tremulous eyes;
In vain she *wills* to run, fly, swim, walk, creep;[13]
The WILL presides not in the bower of SLEEP.
—On her fair bosom sits the Demon-Ape
Erect, and balances his bloated shape;

The Will presides not. l. 74. Sleep consists in the abolition of all voluntary power, both over our muscular motions and our ideas; for we neither walk nor reason in sleep. But, at the same time, many of our muscular motions, and many of our ideas, continue to be excited into action in consequence of internal irritations and of internal sensations; for the heart and arteries continue to beat, and we experience variety of passions, and even hunger and thirst in our dreams. Hence I conclude, that our nerves of sense are not torpid or inert during sleep; but that they are only precluded from the perception of external objects, by their external organs being rendered unfit to transmit to them the appulses[14] of external bodies, during the suspension of the power of volition; thus the eyelids are closed in sleep, and I suppose the tympanum of the ear is not stretched, because they are deprived of the voluntary exertions of the muscles appropriated to these purposes; and it is probable something similar happens to the external apparatus of our other organs of sense, which may render them unfit for their office of perception during sleep: for milk put into the mouths of sleeping babes occasions them to swallow and suck; and, if the eye-lid is a little opened in the day-light by the exertions of disturbed sleep, the person dreams of being much dazzled. See first Interlude.

Rolls in their marble orbs his Gorgon-eyes,[15]
And drinks with leathern ears her tender cries.

Arm'd with her ivory beak, and talon-hands,
Descending FICA dives into the sands;
Chamber'd in earth with cold oblivion lies;
Nor heeds, *ye Suitor-train,* your amorous sighs;
Erewhile with renovated beauty blooms,
Mounts into air, and moves her leafy plumes.
—Where HAMPS[16] and MANIFOLD,[17] their cliffs among,
Each in his flinty channel winds along;
With lucid lines the dusky Moor divides,
Hurrying to intermix their sister tides.

When there arises in sleep a painful desire to exert the voluntary motions, it is called the Nightmare or Incubus. When the sleep becomes so imperfect that some muscular motions obey this exertion of desire, people have walked about, and even performed some domestic offices in sleep; one of these sleep-walkers I have frequently seen: once she smelt of a tube-rose, and sung, and drank a dish of tea in this state; her awaking was always attended with prodigious surprize, and even fear; this disease had daily periods, and seemed to be of the epileptic kind.

Ficus indica. l. 80. Indian Fig-tree. Of the [c]lass Polygamy. This large tree rises with opposite branches on all sides, with long egged[18] leaves; each branch emits a slender flexile depending appendage from its summit like a cord, which roots into the earth and rises again. Sloan. Hist. of Jamaica.[19] Lin. Spec. Plant.[20] See Capri-ficus.

Where still their silver-bosom'd Nymphs abhor,
The blood-smear'd mansion of gigantic THOR,[21]—
—Erst, fires volcanic in the marble womb
Of cloud-wrapp'd WETTON raised the massy dome;
Rocks rear'd on rocks in huge disjointed piles
Form the tall turrets, and the lengthen'd ailes;

Gigantic Thor. l. 90. Near the village of Wetton, a mile or two above Dove-Dale, near Ashburn in Derbyshire,[22] there is a spacious cavern about the middle of the ascent of the mountain, which still retains the Name of Thor's house; below is an extensive and romantic common, where the rivers Hamps and Manifold sink into the earth, and rise again in Ilam gardens, the seat of John Port, Esq.[23] about three miles below. Where these rivers rise again there are impressions resembling Fish, which appear to be of Jasper bedded in Limestone. Calcareous Spars, Shells converted into a kind of Agate, corallines in Marble, ores of Lead, Copper, and Zinc, and many strata of Flint, or Chert, and of Toadstone, or Lava, abound in this part of the country. The Druids are said to have offered human sacrifices inclosed in wicker idols to Thor. Thursday had its name from this Deity.

The broken appearance of the surface of many parts of this country; with the Swallows, as they are called, or basons on some of the mountains, like volcanic Craters, where the rain-water sinks into the earth; and the numerous large stones, which seem to have been thrown over the land by volcanic explosions; as well as the great masses of Toadstone or Lava; evince the existence of violent earthquakes at some early period of the world. At this time the channels of these subterraneous rivers seem to have been formed, when a long tract of rocks were raised by the sea flowing in upon the central fires, and thus producing an irresistable explosion of steam; and when these rocks again subsided, their parts did not exactly correspond, but left a long cavity arched over in this operation of nature. The cavities at Castleton and Buxton in Derbyshire seem to have had a similar origin, as well as this cavern termed Thor's house. See Mr. Whitehurst's[24] and Dr. Hutton's[25] Theories of the Earth.

Broad ponderous piers[26] sustain the roof, and wide
Branch the vast rain-bow ribs from side to side.
While from above descends in milky streams
One scanty pencil of illusive beams,
Suspended crags and gaping gulphs illumes,
And gilds the horrors of the deepen'd glooms.
—Here oft the Naiads,[27] as they chanced to play
Near the dread Fane[28] on THOR's returning day,
Saw from red altars streams of guiltless blood
Stain their green reed-beds, and pollute their flood;
Heard dying babes in wicker prisons wail,
And shrieks of matrons thrill the affrighted Gale;
While from dark caves infernal Echoes mock,
And Fiends triumphant shout from every rock!
—*So* still the Nymphs emerging lift in air
Their snow-white shoulders and their azure hair;
Sail with sweet grace the dimpling streams along,
Listening the Shepherd's or the Miner's song;
But, when afar they view the giant-cave,
On timorous fins they circle on the wave,

With streaming eyes and throbbing hearts recoil,
Plunge their fair forms, and dive beneath the soil.—
Closed round their heads reluctant eddies sink,
And wider rings successive dash the brink.—
Three thousand steps in sparry clefts they stray,
Or seek through sullen mines their gloomy way;
On beds of Lava sleep in coral cells,
Or sigh o'er jasper fish, and agate shells.
Till, where famed ILAM leads his boiling floods
Through flowery meadows and impending woods,
Pleased with light spring they leave the dreary night,
And 'mid circumfluent surges rise to light;
Shake their bright locks, the widening vale pursue,
Their sea-green mantles fringed with pearly dew;
In playful groups by towering THORP[29] they move,
Bound o'er the foaming wears,[30] and rush into the Dove.[31]

With fierce distracted eye IMPATIENS stands,
Swells her pale cheeks, and brandishes her hands,

Impatiens. l. 131. Touch me not. The seed vessel consists of one cell with five divisions; each of these, when the seed is ripe, on being touched, suddenly folds itself into

With rage and hate the astonish'd groves alarms,
And hurls her infants from her frantic arms.
—So when MEDÆA[32] left her native soil
Unaw'd by danger, unsubdued by toil;
Her weeping sire and beckoning friends withstood,
And launch'd enamour'd on the boiling flood;
One ruddy boy her gentle lips caress'd,
And one fair girl was pillow'd on her breast;

a spiral form, leaps from the stalk, and disperses the seeds to a great distance by it's elasticity. The capsule of the geranium and the beard of wild oats are twisted for a similar purpose, and dislodge their seeds on wet days, when the ground is best fitted to receive them. Hence one of these, with its adhering capsule or beard fixed on a stand, serves the purpose of an hygrometer, twisting itself more or less according to the moisture of the air.

The awn[33] of barley is furnished with stiff points, which, like the teeth of a saw, are all turned towards the point of it;[34] as this long awn lies upon the ground, it extends itself in the moist air of night, and pushes forwards the barley corn, which it adheres to; in the day it shortens as it dries; and as these points prevent it from receding, it draws up its pointed end; and thus, creeping like a worm, will travel many feet from the parent stem. That very ingenious Mechanic Philosopher, Mr. Edgeworth,[35] once made on this principle a wooden automaton; its back consisted of soft Fir-wood, about an inch square, and four feet long, made of pieces cut the cross-way in respect to the fibres of the wood, and glued together: it had two feet before, and two behind, which supported the back horizontally; but were placed with their extremities, which were armed with sharp points of iron, bending backwards. Hence, in moist weather, the back lengthened, and the two foremost feet were pushed forwards; in dry weather the hinder feet were drawn after, as the obliquity of the points of the feet prevented it from receding. And thus, in a month or two, it walked across the room which it inhabited. Might not this machine be applied as an Hygrometer to some meteorological purpose?

While high in air the golden treasure burns,
And Love and Glory guide the prow by turns.
But, when Thessalia's[36] inauspicious plain
Received the matron-heroine from the main;
While horns of triumph sound, and altars burn,
And shouting nations hail their Chief's return;
Aghast, She saw new-deck'd the nuptial bed,
And proud CREUSA[37] to the temple led;
Saw her in JASON's mercenary arms
Deride her virtues, and insult her charms;
Saw her dear babes from fame and empire torn,
In foreign realms deserted and forlorn;
Her love rejected, and her vengeance braved,
By Him her beauties won, her virtues saved.—
With stern regard she eyed the traitor-king,
And felt, Ingratitude! thy keenest sting;
"Nor Heaven," She cried, "nor Earth, nor Hell can hold
"A Heart abandon'd to the thirst of Gold!"
Stamp'd with wild foot, and shook her horrent[38] brow,
And call'd the furies[39] from their dens below.

—Slow out of earth, before the festive crowds,
On wheels of fire, amid a night of clouds,
Drawn by fierce fiends arose a magic car,[40]
Received the Queen, and hovering flamed in air.—
As with raised hands the suppliant traitors kneel
And fear the vengeance they deserve to feel,
Thrice with parch'd lips her guiltless babes she press'd,
And thrice she clasp'd them to her tortur'd breast;
Awhile with white uplifted eyes she stood,
Then plung'd her trembling poniards in their blood.
"Go, kiss your sire! go, share the bridal mirth!"
She cry'd, and hurl'd their quivering limbs on earth.
Rebellowing thunders rock the marble towers,
And red-tongued lightnings shoot their arrowy showers;
Earth yawns!—the crashing ruin sinks!—o'er all
Death with black hands extends his mighty Pall;
Their mingling gore the Fiends of Vengeance quaff,
And Hell receives them with convulsive laugh.

Round the vex'd isles where fierce tornados roar,
Or tropic breezes sooth the sultry shore;

What time the eve her gauze pellucid spreads
O'er the dim flowers, and veils the misty meads;
Slow, o'er the twilight sands or leafy walks,
With gloomy dignity DICTAMNA stalks;

Dictamnus. l. 184. Fraxinella. In the still evenings of dry seasons this plant emits an inflammable air or gas, and flashes on the approach of a candle. There are instances of human creatures who have taken fire spontaneously, and been totally consumed. Phil. Trans.[41]

The odours of many flowers, so delightful to our sense of smell, as well as the dis[a]greeable scents of others, are owing to the exhalation of their essential oils. These essential oils have greater or less volatility, and are all inflammable; many of them are poisons to us, as these of Laurel and Tobacco; others possess a narcotic quality, as is evinced by the oil of cloves instantly relieving slight tooth-achs; from oil of cinnamon relieving the hiccup; and balsam of peru relieving the pain of some ulcers. They are all deleterious to certain insects, and hence their use in the vegetable economy being produced in flowers or leaves to protect them from the depredations of their voracious enemies. One of the essential oils,[42] that of turpentine, is recommended, by M. de Thosse,[43] for the purpose of destroying insects, which infect both vegetables and animals. Having observed that the trees were attacked by multitudes of small insects of different colours (pucins ou pucerons), which injured[44] their young branches, he destroyed them all intirely in the following manner: her put into a bowl a few handfuls of earth, on which he poured a small quantity of oil of turpentine; he then beat the whole together with a spatula, pouring on it water till it became of the consistence of soup; with this mixture he moistened the ends of the branches, and both the insects and their eggs were destroyed, and other insects kept aloof by the scent of the turpentine. He adds, that he destroyed the fleas of his puppies by once bathing them in warm water impregnated with oil of turpentine. Mem. d'Agriculture, An. 1787, Trimest. Printemp. p. 109.[45] I sprinkled[46] some oil of turpentine, by means of a brush, on some branches of a nectarine-tree, which was covered with the aphis; but it killed both the insect and the branches: a solution of arsenic much diluted did the same. The shops of medicine are supplied with resins, balsams, and essential oils; and the tar and pitch, for mechanical purposes, are produced from these vegetable secretions.

In sulphurous eddies round the weird dame
Plays the light gas, or kindles into flame.
If rests the traveller his weary head,
Grim MANCINELLA haunts the mossy bed,
Brews her black hebenon,[47] and, stealing near,
Pours the curst venom in his tortured ear.—
Wide o'er the mad'ning throng URTICA flings
Her barbed shafts, and darts her poison'd stings.

Mancinella. l. 188. Hyppomane. With the milky juice of this tree the Indians poison their arrows; the dew-drops, which fall from it, are so caustic as to blister the skin, and produce dangerous ulcers; whence many have found their death by sleeping under its shade. Variety of noxious plants abound in all countries; in our own the deadly nightshade, henbane, hounds-tongue, and many others, are seen in almost every high road untouched by animals. Some have asked, what is the use of such abundance of poisons? The nauseous or pungent juices of some vegetables, like the thorns of others, are given them for their defence from the depredations of animals; hence the thorny plants are in general wholesome and agreeable food to graminivorous[48] animals. See note on Ilex. The flowers or petals of plants are perhaps in general more acrid than their leaves; hence they are much seldomer eaten by insects. This seems to have been the use of the essential oil in the vegetable economy, as observed above in the notes on Dictamnus and on Ilex. The fragrance of plants is thus a part of their defence. These pungent or nauseous juices of vegetables have supplied the science of medicine with its principal materials, such as purge, vomit, intoxicate, &c.

Urtica. l. 191. Nettle. The sting has a bag at its base, and a perforation near its point, exactly like the stings of wasps and the teeth of adders; Hook, Microgr. p. 142.[49] Is the fluid contained in this bag, and pressed through the perforation into the wound, made by the point, a caustic essential oil, or a concentrated vegetable acid? The vegetable poisons, like the animal ones, produce more sudden and dangerous effects, when

And fell LOBELIA's suffocating breath

Loads the dank pinion of the gale with death.[50]

—With fear and hate they blast the affrighted groves,

Yet own with tender care their *kindred Loves!*—

So, where PALMIRA[51] 'mid her wasted plains,

Her shatter'd aqueducts, and prostrate fanes,

instilled into a wound, than when taken into the stomach; whence the families of Marsi and Psilli,[52] in ancient Rome, sucked the poison without injury out of wounds made by vipers, and were supposed to be indued with supernatural powers for this purpose. By the experiments related by Beccaria,[53] it appears that four or five times the quantity, taken by the mouth, had about equal effects with that infused into a wound. The male flowers of the nettle are separate from the female, and the anthers are seen in fair weather to burst with force, and to discharge a dust, which hovers about the plant like a cloud.

Lobelia. l. 193. Longiflora. Grows in the West Indies, and spreads such deleterious exhalations around it, that an oppression of the breast is felt on approaching it at many feet distance when placed in the corner of a room or hot-house. Ingenhouz, Exper. on Air, p. 146.[54] Jacquini hort. botanic. Vindeb.[55] The exhalations from ripe fruit, or withering leaves, are proved much to injure the air in which they are confined; and, it is probable, all those vegetables which emit a strong scent may do this in a greater or less degree, from the Rose to the Lobelia; whence the unwholesomeness in living perpetually in such an atmosphere of perfume as some people wear about their hair, or carry in their handkerchiefs. Either Boerhaave[56] or Dr. Mead[57] have affirmed they were acquainted with a poisonous fluid whose vapour would presently destroy the person who sat near it. And it is well known, that the gas from fermenting liquors, or obtained from lime-stone, will destroy animals immersed in it, as well as the vapour of the Grotto del Cani near Naples.

So, where Palmira. l. 197. Among the ruins of Palmira, which are dispersed not

(As the bright orb of breezy midnight pours
Long threads of silver through her gaping towers,
O'er mouldering tombs, and tottering columns gleams,
And frosts her deserts with diffusive beams),
Sad o'er the mighty wreck in silence bends,
Lifts her wet eyes, her tremulous hands extends.—
If from lone cliffs a bursting rill expands
Its transient course, and sinks into the sands;
O'er the moist rock the fell Hyæna prowls,
The Leopard hisses, and the Panther growls;
On quivering wing the famish'd Vulture screams,
Dips his dry beak, and sweeps the gushing streams;
With foamy jaws, beneath, and sanguine tongue,
Laps the lean Wolf, and pants, and runs along;
Stern stalks the Lion, on the rustling brinks
Hears the dread Snake, and trembles as he drinks;
Quick darts the scaly Monster o'er the plain,
Fold after fold, his undulating train;

only over the plains but even in the deserts, there is one single colonnade above 2600 yards long, the bases of the Corinthian columns of which exceed the height of a man: and yet this row is only a small part of the remains of that one edifice! Volney's Travels.[59]

And, bending o'er the lake his crested brow,
Starts at the Crocodile, that gapes below.

Where seas of glass with gay reflections smile
Round the green coasts of Java's palmy isle;[60]
A spacious plain extends its upland scene,
Rocks rise on rocks, and fountains gush between;
Soft zephyrs blow,[61] eternal summers reign,
And showers prolific bless the soil,—in vain!
—No spicy nutmeg scents the vernal gales,
Nor towering plaintain shades the mid-day vales;
No grassy mantle hides the sable hills,
No flowery chaplet[62] crowns the trickling rills;
Nor tufted moss, nor leathery lichen creeps
In russet tapestry o'er the crumbling steeps.
—No step retreating, on the sand impress'd,
Invites the visit of a second guest;
No refluent fin the unpeopled stream divides,
No revolant pinion cleaves the airy tides;

Nor handed moles, nor beaked worms return,
That mining pass the irremeable[63] bourn.——
Fierce in dread silence on the blasted heath
Fell UPAS[64] sits, the HYDRA-TREE[65] of death.
Lo! from one root, the envenom'd soil below,
A thousand vegetative serpents grow;
In shining rays the scaly monster spreads
O'er ten square leagues his far-diverging heads;
Or in one trunk entwists his tangled form,
Looks o'er the clouds, and hisses in the storm.

Upas. l. 238. There is a poison-tree in the island of Java, which is said by its effluvia to have depopulated the country for 12 or 14 miles round the place of its growth. It is called, in the Malayan language,[66] Bohon-Upas; with the juice of it the most poisonous arrows are prepared; and, to gain this, the condemned criminals are sent to the tree with proper direction both to get the juice and to secure themselves from the malignant exhalations of the tree; and are pardoned if they bring back a certain quantity of the poison. But by the registers there kept, not one in four is said to return. Not only animals of all kinds, both quadrupeds, fish, and birds, but all kinds of vegetables also are destroyed by the effluvia of the noxious tree; so that, in a district of 12 to 14 miles round it, the face of the earth is quite barren and rocky, intermixed only with the skeletons of men and animals; affording a scene of melancholy beyond what poets have described or painters delineated. Two younger trees of its own species are said to grow near it. See London Magazine for 1784, or 1783.[67] Translated from a description of the poison-tree of the island of Java, written in Dutch by N.P. Foer[sc]h.[68] For a further account[69] of it, see a note at the end of the work.

Steep'd in fell poison, as his sharp teeth part,
A thousand tongues in quick vibration dart;
Snatch the proud Eagle towering o'er the heath,
Or pounce the Lion, as he stalks beneath;
Or strew, as marshall'd hosts contend in vain,
With human skeletons the whiten'd plain.
—Chain'd at his root two scion-demons[70] dwell,
Breathe the faint hiss, or try the shriller yell;[71]
Rise, fluttering in the air on callow[72] wings,
And aim at insect-prey their little stings.
So Time's strong arms with sweeping scythe erase
Art's cumberous works, and empires, from their base;
While each young Hour its sickle fine employs,
And crops the sweet buds of domestic joys!

With blushes bright at morn fair ORCHIS charms,[73]
And lulls her infant in her fondling arms;

Orchis. l. 259. The Orchis morio in the circumstance of the parent-root shrivelling up and dying, as the young one increases, is not only analogous to other tuberous or knobby roots, but also to some bulbous roots, as the tulip. The manner of the production of herbaceous plants from their various perennial roots, seems to want further

Soft plays *Affection* round her bosom's throne,

And guards his life, forgetful of her own.

investigation, as their analogy is not yet clearly established. The caudex, or true root, in the orchis lies above the knob; and from this part the fibrous roots and the new knob are produced. In the tulip the caudex lies below the bulb; from whence proceed the fibrous roots and the new bulbs; and I suspect the tulip-root, after it has flowered, dies[74] like the orchis-root; for the stem of the last year's tulip lies on the outside, and not in the center of the new bulb;[75] which I am informed does not happen in the three or four first years when raised from seed, when it only produces a stem, and slender leaves without flowering. In the tulip-root, dissected in the early spring, just before it begins to shoot, a perfect flower is seen in its center; and between the first and second coat the large next year's bulb is, I believe, produced; between the second and third coat, and between this and the fourth coat, and perhaps further, other less and less bulbs are visible, all adjoining to the caudex at the bottom of the mother-bulb; and which, I am told, require as many years before they will flower, as the number of the coats with which they are covered. This annual reproduction of the tulip-root induces some florists to believe that tulip-roots never die naturally, as they lose so few of them; whereas the hyacinth-roots, I am informed, will not last above five or seven years after they have flowered.

The hyacinth-root differs from the tulip-root, as the stem of the last year's flower is always found in the center of the root, and the new off-sets arise from the caudex below the bulb, but not beneath any of the concentric coats of the root, except the external one: hence Mr. Eaton,[76] an ingenious florist of Derby, to whom I am indebted for most of the observations in this note, concludes, that the hyacinth-root does not perish annually after it has flowered like the tulip. Mr. Eaton gave me a tulip root which had been set too deep in the earth, and the caudex had elongated itself near an inch, and the new bulb was formed above the old one, and detached from it, instead of adhering to its side. {See addit. Notes to Vol. I. No. XIV.}[77]

The caudex of the ranunculus, cultivated by the florists, lies above the claw-like root; in this the old root or claws die annually, like the tulip and orchis, and the new claws, which are seen above the old ones, draw down the caudex lower into the earth. The same is said to happen to Scabiosa, or Devil's bit, and some other plants, as valerian and greater plantain; the new fibrous roots rising round the caudex above the old ones, the inferior end of the root becomes stumped, as if cut off, after the old fibres are decayed, and the caudex is drawn down into the earth by these new roots. See Arum and Tulipa.

So wings the wounded Deer her headlong flight,
Pierced by some ambush'd archer of the night,
Shoots to the woodlands with her bounding fawn,
And drops of blood bedew the conscious lawn;
There hid the shades she shuns the cheerful day,
Hangs o'er her young, and weeps her life away.

So stood Eliza on the wood-crown'd height,
O'er Minden's[78] plain, spectatress of the fight,
Sought with bold eye amid the bloody strife
Her dearer self, the partner of her life;
From hill to hill the rushing host pursued,
And view'd his banner, or believed she view'd.
Pleased with the distant roar, with quicker tread
Fast by his hand one lisping boy she led;
And one fair girl amid the loud alarm
Slept on her kerchief, cradled by her arm;
While round her brows bright beams of Honour dart,
And Love's warm eddies circle round her heart.

—Near and more near the intrepid Beauty press'd,
Saw through the driving smoke his dancing crest,
{Saw on his helm, her virgin hands inwove,
Bright stars of gold, and mystic knots of love;}[79]
Heard the exulting shout, "they run! they run!"
"Great GOD!" she cried, "He's safe! the battle's won!"
—A ball now hisses through the airy tides,
(Some Fury wing'd it, and some Demon guides!)
Parts the fine locks, her graceful head that deck,
Wounds her fair ear, and sinks into her neck;
The red stream, issuing from her azure veins,
Dyes her white veil, her ivory bosom stains.—
—"Ah me!" she cried, and, sinking on the ground,
Kiss'd her dear babes, regardless of the wound;
"Oh, cease not yet to beat, thou Vital Urn!
"Wait, gushing Life, oh, wait my Love's return!—
"Hoarse barks the wolf, the vulture screams from far![—][80]
"The angel, Pity, shuns the walks of war!—
"Oh, spare ye War-hounds, spare their tender age!—
"On me, on me," she cried, "exhaust your rage!"—
Then with weak arms her weeping babes caress'd,
And sighing hid them in her blood-stain'd vest.

From tent to tent the impatient warrior flies,
Fear in his heart, and frenzy in his eyes;
Eliza's name along the camp he calls,
Eliza echoes through the canvas walls;
Quick through the murmuring gloom his footsteps tread,
O'er groaning heaps, the dying and the dead,
Vault o'er the plain, and in the tangled wood,
Lo! dead Eliza weltering in her blood!—
—Soon hears his listening son the welcome sounds,
With open arms and sparkling eyes he bounds:—
"Speak low," he cries, and gives his little hand,
"Eliza sleeps upon the dew-cold sand;
"Poor weeping Babe with bloody fingers press'd,
"And tried with pouting lips her milkless breast;
"Alas! we both with cold and hunger quake—
"Why do you weep?—Mama will soon awake."
—"She'll wake no more!" the hopeless mourner cried,
Upturn'd his eyes, and clasp'd his hands, and sigh'd;

Stretch'd on the ground awhile entranc'd he lay,
And press'd warm kisses on the lifeless clay;
And then unsprung with wild convulsive start,
And all the Father kindled in his heart;
"Oh, Heavens!" he cried, "my first rash vow forgive!
"These bind to earth, for these I pray to live!"—
Round his chill babes he wrapp'd his crimson vest,
And clasp'd them sobbing to his aching breast.

Two Harlot-Nymphs, the fair CUSCUTAS, please
With labour'd negligence, and studied ease;

Cuscuta. l . 327. Dodder. Four males, two females. This parasite plant (the seed splitting without cotyledons), protrudes a spiral body, and not endeavouring to root itself in the earth ascends the vegetables in its vicinity, spirally W. S. E. or contrary to the movement of the sun; and absorbs its nourishment by vessels apparently inserted into its supporters. It bears no leaves, except here and there a scale, very small, membranous, and close under the branch. Lin. Spec. Plant. edit. a Reichard. Vol. I. p. 352.[81] The Rev. T. Martyn,[82] in his elegant letters on botany, adds, that, not content with support, where it lays hold, there it draws its nourishment; and at length, in gratitude for all this, strangles its entertainer. Let. xv. A contest for air and light obtains throughout the whole vegetable world; shrubs rise above herbs; and, by precluding the air and light from them, injure or destroy them; trees suffocate or incommode shrubs; the parasite climbing plants, as Ivy, Clematis, incommode the taller trees; and other parasites, which exist without having roots on the ground, as Misletoe, Tillandsia, Epidendrum, and the mosses and funguses, incommode them all.

Some of the plants with voluble stems ascend other plants spirally east-south-west, as

In the meek garb of modest worth disguised,
The eye averted, and the smile chastised,
With sly approach they spread their dangerous charms,
And round their victim wind their wiry arms.
So by Scamander[83] when LAOCOON[84] stood,
Where Troy's proud turrets glitter'd in the flood,
Raised high his arm, and with prophetic call
To shrinking realms announced her fatal fall;
Whirl'd his fierce spear with more than mortal force,
And pierced the thick ribs of the echoing horse;

Humulus, Hop, Lonicera, Honey-suckle, Tamus, black Bryony, Helxine. Others turn their spiral stems west-south-east, as Convolvulus, Corn-bind, Phaseolus, Kidney-bean, Basella, Cynanche, Euphorbia, Eupatorium. The proximate or final causes of this difference have not been investigated. Other plants are furnished with tendrils for the purpose of climbing: if the tendril meets with nothing to lay hold of in its first revolution, it makes another revolution; and so on till it wraps itself quite up like a cork-screw; hence, to a careless observer, it appears to move gradually backwards and forwards, being seen sometimes pointing eastwards and sometimes westward.[85] One of the Indian grasses, Panicum arborescens, whose stem is no thicker than a goose-quill, rises as high as the tallest trees in this contest for light and air. Spec. Plant a Reichard, Vol. I. p. 161.[86] The tops of many climbing plants are tender from their quick growth; and, when deprived of their acrimony by boiling, are an agreeable article of food. The Hop-tops are in common use. I have eaten the tops of white Bryony, Bryonia alba, and found them nearly as grateful as Asparagus, and think this plant might be profitably cultivated as an early garden-vegetable. The Tamus (called black Bryony), was less agreeable to the taste when boiled. See Galanthus.

Two Serpent-forms incumbent on the main,
Lashing the white waves with redundant train,
Arch'd their blue necks, and shook their towering crests,
And plough'd their foamy way with speckled breasts;
Then darting fierce amid the affrighted throngs,
Roll'd their red eyes, and shot their forked tongues.—
—Two daring Youths to guard the hoary sire
Thwart their dread progress, and provoke their ire.
Round sire and sons the scaly monsters roll'd,
Ring above ring, in many a tangled fold,
Close and more close their writhing limbs surround,
And fix with foamy teeth the envenom'd wound.
—With brow upturn'd to heaven the holy Sage
In silent agony sustains their rage;
While each fond Youth, in vain, with piercing cries
Bends on the tortured Sire his dying eyes.

"Drink deep, sweet youths," seductive VITIS cries,
The maudlin tear-drop glittering in her eyes;
Green leaves and purple clusters crown her head,
And the tall Thyrsus[87] stays her tottering tread.
—*Five* hapless swains with soft assuasive smiles
The harlot meshes in her deathful toils;
"Drink deep," she carols, as she waves in air
The mantling goblet, "and forget your care."—
O'er the dread feast malignant Chemia scowls,
And mingles poison in the nectar'd bowls;
Fell Gout[88] peeps grinning through the flimsy scene,
And bloated Dropsy[89] pants behind unseen;
Wrapp'd in his robe white Lepra[90] hides his stains,
And silent Frenzy[91] writhing bites his chains.

Vitis. l. 355. Vine. Five males, one female. The juice of the ripe grape is a nutritive and agreeable food, consisting chiefly of sugar and mucilage. The chemical process of fermentation converts this sugar into spirit, converts food into poison! And it has thus become the curse of the Christian world, producing more than half of our chronical diseases; which Mahomet observed, and forbade the use of it to his disciples. The Arabians invented distillation; and thus, by obtaining the spirit of fermented liquors in a less diluted state, added to its destructive quality. A Theory of the Diabætes and Dropsy, produced by drinking fermented or spirituous liquors, is explained in a Treatise on the inverted motions of the lymphatic system, published by Dr. Darwin.[92] Cadell.

So when PROMETHEUS[93] braved the Thunderer's[94] ire,
Stole from his blazing throne etherial fire,[95]
And, lantern'd in his breast, from realms of day
Bore the bright treasure to his Man of clay;[96]—
High on cold Caucasus by VULCAN bound,
The lean impatient Vulture fluttering round,
His writhing limbs in vain he twists and strains
To break or loose the adamantine[97] chains.
The gluttonous bird, exulting in[98] his pangs,
Tears his swoln liver with remorseless fangs.

Prometheus. l. 369. The antient story of Prometheus, who concealed in his bosom the fire he had stolen, and afterwards had a vulture perpetually gnawing his liver, affords so apt an allegory for the effects of drinking spirituous liquors, that one should be induced to think the art of distillation, as well as some other chemical processes (such as calcining[99] gold), had been known in times of great antiquity, and lost again. The swallowing drams cannot be better represented in hieroglyphic language than by taking fire into one's bosom; and certain it is, that the general effect of drinking fermented or spirituous liquors is an inflamed, schirrous,[100] or paralytic liver, with its various critical or consequential diseases, as leprous eruptions on the face, gout, dropsy, epilepsy, insanity. It is remarkable, that all the diseases from drinking spirituous or fermented liquors are liable to become hereditary, even to the third generation; gradually increasing, if the cause be continued, till the family becomes extinct.

The gentle CYCLAMEN with dewy eye
Breathes o'er her lifeless babe the parting sigh;
And, bending low to earth, with pious hands
Inhumes her dear Departed in the sands.
"Sweet Nursling! withering in thy tender hour,
"Oh, sleep," She cries, "and rise a fairer flower!"
—So when the Plague o'er London's gasping crowds
Shook her dank wing, and steer'd her murky clouds;
When o'er the friendless bier no rites were read,
No dirge slow-chanted, and no pall out-spread;
While Death and Night piled up the naked throng,
And Silence drove their ebon cars along;
Six lovely daughters, and their father, swept
To the throng'd grave CLEONE[101] saw, and wept;

Cyclamen. l. 379. Shew-bread,[102] or Sow-bread. When the seeds are ripe, the stalk of the flower gradually twists itself spirally downwards, till it touches the ground, and forcibly penetrating the earth lodges its seeds; which are thought to receive nourishment from the parent root, as they are said not to be made to grow in any other situation.

The Trifolium subterraneum, subterraneous trefoil, is another plant, which buries its seed, the globular head of the seed penetrating the earth; which, however, in this plant may be only an attempt to conceal its seeds from the ravages of birds; for there is another trefoil, the trifolium globosum, or globular woolly-headed trefoil, which has a curious manner of concealing its seeds; the lower florets only have corols and are fertile; the upper ones wither into a kind of wool, and, forming a head, compleatly conceal the fertile calyxes. Lin. Spec. Plant. a. Reichard.[103]

Her tender mind, with meek Religion fraught,
Drank all-resigned Affliction's bitter draught;
Alive and listening to the whisper'd groan
Of others' woes, unconscious of her own!—
One smiling boy, her last sweet hope, she warms
Hushed on her bosom, circled in her arms,—
Daughter of woe! ere morn, in vain caress'd,
Clung the cold Babe upon thy milkless breast,
With feeble cries thy last sad aid required,
Stretch'd its stiff limbs, and on thy lap expired!—
—Long with wide eye-lids on her Child she gazed,
And long to heaven their tearless orbs she raised;
Then with quick foot and throbbing heart she found
Where Chartreuse[104] open'd deep his holy ground;

Where Chartreuse. l. 406. During the plague in London, 1665, one pit to receive the dead was dug in the Charter-house, 40 feet long, 16 feet wide, and about 20 feet deep; and in two weeks received 1114 bodies. During this dreadful calamity there were instances of mothers carrying their own children to those public graves, and of people delirious, or in despair from the loss of their friends, who threw themselves alive into these pits. Journal of the Plague-year in 1665, printed for E. Nutt, Royal-Exchange.[105]

Bore her last treasure through the midnight gloom,
And kneeling dropp'd it in the mighty tomb;
"I follow next!" the frantic mourner said,
And living plunged amid the festering dead.

Where vast Ontario[106] rolls his brineless tides,
And feeds the trackless forests on his sides,
Fair CASSIA trembling hears the howling woods,
And trusts her tawny children to the floods.—

Rolls his brineless tides.[107] l. 411. Some philosophers have believed that the continent of America was not raised out of the great ocean at so early a period of time as the other continents. One reason for this opinion was, because the great lakes, perhaps nearly as large as the Mediterranean Sea, consist of fresh water. And as the sea-salt seems to have its origin from the destruction of vegetable and animal bodies, washed down by rains, and carried by rivers into lakes or seas; it would seem that this source of sea-salt had not so long existed in that country. There is, however, a more satisfactory way of explaining this circumstance; which is, that the American lakes lie above the level of the ocean, and are hence perpetually desalited by the rivers which run through them; which is not the case with the Mediterranean, into which a current from the main ocean perpetually passes.

Cassia. l. 413. Ten males, one female. The seeds are black, the stamens gold-colour. This is one of the American fruits, which are annually thrown on the coasts of Norway; and are frequently in so recent a state as to vegetate,[108] when properly taken care of, the fruit of the anacardium, cashew-nut; of curcurbita lagenaria, bottlegourd; of the mimosa scandens, cocoons; of the piscidia erythrina, logwood-tree; and cocoa-nuts are enumerated by Dr. Tonning. (Amæn. Acad. 149.)[109] amongst these emigrant seeds. The fact is truly wonderful, and cannot be accounted for but by the existence of under

Cinctured with gold while *ten* fond brothers stand, 415

And guard the beauty on her native land,

currents in the depths of the ocean; or from vortexes of water passing from one country to another through caverns of the earth.

Sir Hans Sloane[110] has given an account of four kinds of seeds, which are frequently thrown by the sea upon the coasts of the islands of the northern parts of Scotland. Phil. Trans. abridged, Vol. III. p. 540.[111] which seeds are natives of the West Indies, and seem to be brought thither by the gulf-stream described below. One of these is called, by Sir H. Sloane, Phaseolus maximus perrenis, which is often also thrown on the coast of Kerry in Ireland; another is called, in Jamaica, Horse-eye-bean; and a third is called Niker in Jamaica. He adds, that the Lenticula marina, or Sargosso, grows on the rocks about Jamaica, is carried by the winds and current towards the coast of Florida, and thence into the North-American ocean, where it lives very thick on the surface of the sea.

Thus a rapid current passes from the gulf of Florida to the N. E. along the coast of North-America, known to seamen by the name of the GULF-STREAM. A chart of this was published by Dr. Fra[nk]lin[112] in 1768, from the information principally of Capt. Folger. This was confirmed by the ingenious experiments of Dr. Blagden,[113] published in 1781, who found that the water of the Gulf-stream was from six to eleven degrees warmer than the water of the sea through which it ran; which must have been occasioned by its being brought from a hotter climate. He ascribes the origin of this current to the power of the trade-winds, which, blowing always in the same direction, carry the waters of the Atlantic ocean to the westward, till they are stopped by the opposing continent on the west of the Gulf of Mexico, and are thus accumulated there, and run down the Gulf of Florida. Philos. Trans. V. 71, p. 335. Governor Pownal[114] has given an elegant map of this Gulf-stream, tracing it from the Gulf of Florida northward as far as Cape Sable in Nova Scotia, and then across the Atlantic ocean to the coast of Africa between the Canary-islands and Senegal, increasing in breadth, as it runs, till it occupies five or six degrees of latitude. The Governor likewise ascribes this current to the force of the trade-winds *protruding* the waters westward, till they are opposed by the continent, and accumulated in the Gulf of Mexico. He very ingeniously observes, that a great eddy must be produced in the Atlantic ocean between this Gulf-stream and the westerly current protruded by the tropical winds, and in this eddy are found the immense fields of floating vegetables, called Saragosa weeds, and Gulf-weeds, and some light woods, which circulate in these vast eddies, or are occasionally driven out of them by the winds. Hydraulic and Nautical Observations by Governor

Soft breathes the gale, the current gently moves,
And bears to Norway's coasts her infant-loves.
—So the sad mother[115] at the noon of night
From bloody Memphis[116] stole her silent flight;
Wrapp'd her dear babe beneath her folded vest,
And clasp'd the treasure to her throbbing breast,
With soothing whispers hushed its feeble cry,
Press'd the soft kiss, and breathed the secret sigh.—
—With dauntless step she seeks the winding shore,
Hears unappall'd the glimmering torrents roar;
With Paper-flags[117] a floating cradle weaves,
And hides the smiling boy in Lotus-leaves;
Gives her white bosom to his eager lips,
The salt tears mingling with the milk he sips;
Waits on the reed-crown'd brink with pious guile,
And trusts the scaly monsters of the Nile.—

Pownal, 1787.[118] Other currents are mentioned by the Governor in this ingenious work, as those in the Indian Sea, northward of the line, which are ascribed to the influence of the Monsoons. It is probable, that in process of time the narrow tract of land on the west of the Gulf of Mexico may be worn away by this elevation of water dashing against it, by which this immense current would cease to exist, and a wonderful change take place in the Gulf of Mexico and West Indian islands, by the subsiding of the sea, which might probably lay all those islands into one, or join them to the continent.[119]

—Erewhile majestic from his lone abode
Embassador of Heaven, the Prophet trod;
Wrench'd the red Scourge from proud Oppression's hands,
And broke, curst Slavery! thy iron bands.

Hark! heard ye not that piercing cry,
Which shook the waves and rent the sky!—[120]

E'en now, e'en now, on yonder Western shores
Weeps pale Despair, and writhing Anguish roars:
E'en now in Afric's groves with hideous yell
Fierce SLAVERY stalks, and slips the dogs of hell;
From vale to vale the gathering cries rebound,
And sable nations tremble at the sound!—
—YE BANDS OF SENATORS! whose suffrage sways
Britannia's realms, whom either Ind[121] obeys;
Who right the injured, and reward the brave,
Stretch your strong arm, for ye have power to save!
Throned in the vaulted heart, his dread resort,
Inexorable CONSCIENCE holds his court;[122]

With still small voice the plots of Guilt alarms,
Bares his mask'd brow,[123] his lifted hand disarms;
But, wrapp'd in night with terrors all his own,
He speaks in thunder, when the deed is done.
Hear him, ye Senates! hear this truth sublime,
"HE, WHO ALLOWS OPPRESSION, SHARES THE CRIME."

No radiant pearl, which crested Fortune wears,
No gem, that twinkling hangs from Beauty's ears,
Not the bright stars, which Night's blue arch adorn,
Nor rising suns that gild the vernal morn,[124]
Shine with such lustre as the tear, that breaks
For other's woe down Virtue's manly cheeks."[125]

Here ceased the MUSE, and dropp'd her tuneful shell,
Tumultuous woes her panting bosom swell,
O'er her flush'd cheek her gauzy veil she throws,
Folds her white arms, and bends her laurel'd brows;
For human guilt awhile the Goddess sighs,
And human sorrows dim celestial eyes.

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[1] The Church of St. Denys in Sleaford dates from the late twelfth century.

[2] William Pryce (bap. 1735, d. 1790) was a surgeon, mineralogist, and antiquary. ED refers to his book *Mineralogia Cornubiensis [Mineralogy of Cornwall]; A Treatise on Minerals, Mines, and Mining* (1778). Book 3, Chapter 1, "Of the various Methods of discovering Mines", gives references ancient and modern on divining rods, theories of their function, and instructions on how to use them to find metals and water.

[3] 1791, 1794, 1799: "And in this very year,"

[4] A concept coined by the Austrian physician Franz Mesmer (1734–1815); also called "mesmerism." He held that a universal, invisible, magnetic fluid flowed within and between bodies. Its blockage caused illness, and it could be manipulated and redirected to improve health. Initially, Mesmer used magnets in his treatments, and later used touch, gestures, and eye contact. The treatments often caused a

trance-like state. Mesmer began practicing in 1773–1774 in Vienna; in 1778 he began practicing in Paris to greater success, and his methods spread to other practitioners. Animal magnetism was popular in London from c. 1785–1790, where a major practitioner was John Boniot de Mainauduc (c. 1750–1797).

[5] A headdress worn by a bishop as a symbol of office.

[6] A long semicircular cloak worn by ecclesiastics in processions, at some services, and on some other formal occasions.

[7] Another word for Delphic.

[8] A priestly garment, sleeveless and slit at the sides, tied by a belt at the waist.

[9] L. stands for *liber*; ED's reference is to Book 6:46–51 where the Sibyl of Cumae (near Naples) is described: "cui talia fanti / ante fores subito non voltus, non color unus, / non comptae mansere comae, sed pectus anhelum, / et rabie fera corda tument, maiorque videri / nec mortale sonans, adflata est numine quando / iam propiore dei"; "As thus she spake before the doors, suddenly nor countenance nor colour was the same, nor stayed her tresses braided; but her bosom heaves, her heart swells with wild frenzy, and she is taller to behold, nor has her voice a mortal ring, since now she feels the nearer breath of deity" (trans. H. Rushton Fairclough, Loeb Classical Library).

[10] Ratafia, a liqueur made by steeping herbs, kernels, nuts, or fruits in sweetened alcohol.

[11] The most famous painting by artist, writer, and translator Henry Fuseli (1741–1825), *The Nightmare* was exhibited at the Royal Academy in 1782 and caused a sensation. It was the first of four or possibly five versions of *The Nightmare* that Fuseli would paint (see Nicolas Powell, *Fuseli: The Nightmare* (1973), pp. 98–100). A 1783 print of this first version, engraved by Thomas Burke (1749–1815) and published by John Raphael Smith (bap. 1751, d. 1812), became a best-seller in Britain and Europe. Lines III:51–3 appear on Burke's engraving (without crediting a source) in the same form as in an earlier version of the passage (III:51–78) published anonymously in *The Universal Magazine of Knowledge and Pleasure*, Vol. 71 (September 1782): p. 165 (see Appendix 1.3). ED met Fuseli on a trip to London in 1781 (King-Hele, *Life* p. 173), and in 1784 Fuseli put ED in touch with Joseph Johnson to discuss publishing *The Botanic Garden* (see King-Hele, ed., *Letters* 84-10). Fuseli made several designs for ED's books: *The Fertilization of Egypt*, engraved by William Blake (1757–1827); the frontispiece *Flora attired by the Elements*, for *The Economy of Vegetation*; *Tornado*, also engraved by Blake, for the 1795 edition of *The Economy of Vegetation*; and the frontispiece and three other illustrations for *The Temple of Nature* (1803).

[12] A reference to *A Midsummer Night's Dream* 5.1.12–8: "The poet's eye, in a fine frenzy rolling, / Doth glance from heaven to Earth, from Earth to heaven, / And as imagination bodies forth / The forms of things unknown, the poet's pen / Turns them to shapes and gives to airy nothing / A local habitation and a name" (Folger Digital Texts). Fuseli was particularly known for his illustrations of Shakespeare, to the extent that he was called "Shakespeare's painter."

[13] 1789: "walk, swim, run, fly, leap;"

[14] An energetic motion toward or against something.

[15] Gorgons are female monsters in Greek myth, often portrayed with glaring eyes and snakes for hair. Medusa is one of them; anyone who looked at her head would turn to stone. Using a mirror to avoid looking at her directly, Perseus beheaded her.
[16] A river in Staffordshire; it rises near Upper Hulme, south of Buxton, and is a tributary of the River Manifold.
[17] A river in Staffordshire; it rises on Axe Edge hill, south of Buxton, and flows into the River Dove.
[18] Egg-shaped. ED explains, in the "Preface of the Translators" to *A System of Vegetables* (1783), the dilemma of translating Latin words such as *ovatum* in the form of "*egg'd*" or "*egg-shaped,*" and the reasons to adopt the former: it is closer to the original Latin, is more concise, describes a particular section only (while "shape" implies the whole external surface), and is less confusing when used in compound descriptive words (pp. vii–viii).
[19] Physician and collector Hans Sloane (1660–1753) acquired many natural history specimens from his own travels (particularly in the West Indies) and from others. His vast collection and library became one of the founding collections of the British Museum. He was President of the Royal Society from 1727 to 1741. Sloane discusses the Ficus indica in *A Voyage to the Islands Madera, Barbadoes, Nieves, St Christophers, and Jamaica*, in the section "The Natural History of Jamaica," Book 1, Chapter 8, part 1 (pp. 138–39).
[20] Linnaeus, *Species Plantarum* (first published 1753). Ficus indica is found in Vol. 2, p. 1060.
[21] Norse thunder god, red-headed and of gigantic size and appetite. He is known for fighting monsters and wields a powerful hammer.
[22] ED lived in Derbyshire 1781–1802, and in the neighboring county of Staffordshire 1756–1781; the places he discusses in this note and corresponding verses are all located in the Peak District which straddles the two counties.
[23] John Whitehurst (1713–1788) mentions the garden of John Port of Ilam in relation to these subterraneous rivers in *An Inquiry into the Original State and Formation of the Earth* (1778; p. 51).
[24] John Whitehurst (1713–1788) was a maker of clocks and scientific instruments, and a geologist; he was a fellow member of the Lunar Society with ED. Whitehurst became a member of the Royal Society in 1779, after publishing *An Inquiry into the Original State and Formation of the Earth* in 1778. He mentions Wetton, Dovedale, and Ilam as places where "the mountains in Derbyshire, and the moorlands of Staffordshire appear to be so many heaps of ruins […] the *strata* lie in the utmost confusion and disorder […] their interior parts are no less rude and romantic; for they universally abound with subterraneous caverns; and, in short, with every possible mark of violence," as seen in "the caverns near Buxton and Castleton, and the subterraneous rivers, the Manifold and the Hamps" (p. 51). He argues that "these romantic appearances are not the effects of a regular uniform law, but of some tremendous convulsions, which have thus burst its *strata*, and thrown their fragments into all this confusion and disorder" (p. 49) and mentions volcanic eruptions specifically (p. 52).
[25] James Hutton (1726–1797) was a geologist who also studied medicine in Paris and Leiden, and had interests in agriculture and in chemistry. He and partner John Davie discovered a way to

manufacture ammonium chloride from soot and became wealthy from it. He was a friend of Lunar Society member James Watt (1736–1819). His 1785 paper, "Theory of the earth, or, An investigation of the laws observable in the composition, dissolution, and restoration of land upon the globe," appeared in *Transactions of the Royal Society of Edinburgh*: Vol. 1, Part 2 (1788), pp. 209–304. (He later published the text with added evidence in book form, as *Theory of the Earth with Proofs and Illustrations* (1795)). He argued that the earth's changes are gradual and cyclic rather than caused by catastrophic forces. In his discussion of various examples of toadstone (pp. 277–83 of the 1788 essay), he questions the assumption that all lava must come from volcanic eruption, and makes a distinction between "erupted lavas" and the "subterraneous lava" of which toadstone is formed, which "only came to be exposed to the light in a long course of time, after it had congealed under the compression of an immense load of earth" (p. 280). He mentions Derbyshire toadstone specifically on p. 277 and references Whitehurst on p. 279.

[26] A vertical support; a pillar.

[27] Nymphs of fresh water such as rivers or springs.

[28] Temple.

[29] Thorpe is a village on the Derbyshire / Staffordshire border; it is separated from the village of Ilam by Thorpe Cloud, a limestone hill.

[30] Weirs, barriers across a river to raise the water and regulate its flow.

[31] The river Dove runs along the border between Staffordshire and Derbyshire. It rises near Buxton and flows southwards until it joins the river Trent near Burton.

[32] In the play *Medea* (431 BCE) by Euripides (c.480–407 BCE), Jason and Medea have gone to Corinth after Medea has betrayed her family for him, helped him win the Golden Fleece, and caused Pelias, Jason's uncle, to be murdered in revenge for usurping the throne of Iolcus from Jason. Jason plans to marry the daughter of Creon, king of Corinth. Medea declares her anger, and she and her two sons (fathered by Jason) are banished by Creon. Before leaving, Medea murders Jason's bride and Creon. She then kills her own children, to make Jason childless and also to prevent them being killed by her enemies. She escapes to Athens where she has asylum from the king, Aegeus.

[33] The beard or bristly growth at the end of the grain-sheath of barley, oats, and other grasses.

[34] 1799: "towards one end of it;"

[35] Richard Lovell Edgeworth (1744–1817), educational writer and engineer, was a friend of ED and fellow Lunar Society member. The novelist Maria Edgeworth (1768–1849) was his daughter. The family lived at times in Ireland on the family estate at Edgeworthstown in County Longford, and at times in England. His inventions were very diverse and include a wind-powered carriage, early forms of the bicycle and telegraph, and a turnip-cutter. In 1767 and 1769, he received medals from the Society for the Encouragement of Arts, Manufactures and Commerce (founded in London in 1754) for several inventions. In 1772 he had a carriage made with improved wheels and steering of Darwin's invention (see King-Hele, *Life*, p. 66). Edgeworth's best-known work, *Practical Education* (1798), co-written with Maria, emphasizes learning through doing experiments. Edgeworth sent ED a

different model of his hygrometer in 1790. ED suggested a very slow race between the two: "but I prefer long-back [the earlier one described here] for a race; and would wager him against brazen-wheels [the later model] for a cool hundred." ED preferred the earlier one "as being simpler, easier to make, and easier to compare with [the] other" (King-Hele, ed., *Letters*, 90-6).

[36] Jason is from Ioclus in Thessalia (or Thessaly).

[37] In Ancient Greek, the feminine form of Creon, "ruler"; the name of several mythical characters. Here, the daughter of Creon.

[38] Bristling, shuddering, or expressing horror.

[39] Avenging deities of Greco-Roman mythology: goddesses with snakes twined in their hair sent from Tartarus (the lowest part of the infernal regions) to punish crime.

[40] Traditionally, Medea escapes to Athens in a chariot of the sun drawn by dragons.

[41] ED may be referring to John Hilliard's "An Extract, by Mr. Paul Rolli, F.R.S. of an Italian Treatise, Written by the Reverend Joseph Bianchini, a Prebend in the City of Verona; Upon the Death of the Countess Cornelia Zangari & Bandi, of Cesena. To Which are Subjoined Accounts of the Death of Jo. Hitchell, Who was Burned to Death by Lightning; And of Grace Pett at Ipswich, Whose Body was Consumed to a Coal" *Philosophical Transactions* 43 (1744–1745): pp. 447–65). This article argues that the deaths in question were by spontaneous human combustion, and it mentions flashes of light or sparkles of fire from inflammable human effluvia (pp. 455–57).

[42] In 1789, this passage, from "One of the essential oils" to "p. 109", appears in a Supplement placed after the indexes.

[43] Raphaël-Hippolyte-François de Thosse was a member of the Royal Society of Agriculture of Paris and occasionally contributed to its journal, *Mémoires d'Agriculture*, which reports that he died in 1832.

[44] 1789: "injured and destroyed"

[45] *Mémoires d'agriculture, d'économie rurale et domestique* [Reports on Agriculture, Rural and Domestic Economy] was published by the Royal Society of Agriculture of Paris. M. de Thosse's article is entitled "Mémoire sur la manière de détruire les Pucerons qui attaquent les Arbres fruitiers" [Report on the manner of destroying the aphids that attack fruit trees] (Spring 1787): pp. 106–15.

[46] This sentence, from "I sprinkled" to "the same.", does not appear in 1789.

[47] A substance with poisonous juice; may refer to henbane or yew. The word was used by Marlowe in *The Jew of Malta* (3.4.101) and by Shakespeare in *Hamlet* (1.5.62).

[48] Graminivorous: that feeds on grass. 1794, 1799: "granivorous": that feeds on grain.

[49] Robert Hooke (1635–1703), natural philosopher, was the first curator of experiments to the Royal Society; he presented up to four experiments, demonstrations, or reports, from different branches of science, at each weekly meeting. He published his most famous work, *Micrographia*: *or some Physiological Descriptions of Minute Bodies made by Magnifying Glasses, with Observations and Inquiries thereupon*, in 1665. It records, with remarkable illustrations, his investigations with his improved version of the microscope; the book established the field of microscopy. The section on the nettle is

Observation 25, found on pp. 142–45; the comparison to "the sting of a Bee, Wasp, &c." is on p. 143. Hooke does not mention the teeth of adders in relation to the nettle.

[50] 1789: "And fell LOBELIA with contagious breath / Infects the light, and wings the gale with death."

[51] Palmyra, ancient oasis city in eastern Syria. It was an ally of Rome, but under the rule of Queen Zenobia its power and empire expanded, and it was destroyed by the Roman Emperor Aurelian in 273 CE.

[52] ED may be thinking of "Some Observations of Vipers," an article from the very first volume of *Philosophical Transactions* (1665–1666), pp. 160–62, which translates the results of experiments by Francesco Redi (1626–1697), Italian biologist, physician, and poet (best known for his experiments to test the theory of spontaneous generation). It mentions "those people, celebrated in *History* by the name of *Marsi* and *Psilli*, whose Employment it was, to heal those, that had been bitten by Serpents, by sucking their wounds" (p. 161). Redi also observed "that the poyson of Vipers is neither in their *Teeth*, nor in their *Tayle*, nor in their *Gall*; but in the two *Vesicles* or *Bladders*, which cover their teeth, and which coming to be compressed, when the Vipers bite, do emit a certain yellowish Liquor, that runs along the teeth and poysons the wound" and that the poison is not harmful if swallowed but only when put into wounds (pp. 160–61). As for supernatural powers, Roman author Pliny the Elder (23–79 CE), in *Naturalis Historia* [Natural History] Book 28, 6.30, recounts that "Of certain men the whole bodies are beneficent, for example the members of those families that frighten serpents. These by a mere touch or by wet suction relieve bitten victims. In this class are the Psylli, the Marsi, and the Ophiogenes, as they are called, in the island of Cyprus. An envoy of this family, by name Evagon, was at Rome thrown by the consuls as a test into a cask of serpents, which to the general amazement licked him all over" (trans. W. H. S. Jones, Loeb Classical Library).

[53] A reference to these experiments cannot be found, and it is unclear who Beccaria is. Giovanni Battista Beccaria (1716–1781), a Catholic priest and Professor of Experimental Philosophy at the University of Turin, was a member of the Royal Society and published articles in *Philosophical Transactions*, mainly on electricity. Jacopo Bartolomeo Beccari (1682–1766) of Bologna was a chemist, and ED refers to his experiments on phosphorescence in *The Economy of Vegetation* I:179–82 and note.

[54] Jan Ingenhousz (1730–1799), physician and natural philosopher from the Netherlands who spent much of his life in London. He met ED's fellow Lunar Society member Joseph Priestley (1733–1804) when traveling with Benjamin Franklin (1706–1790) in 1771. Priestley's researches on air inspired Ingenhousz who is best known for his theories on plant respiration, which are early articulations of the concept of photosynthesis. ED quotes almost verbatim from p. 145 of his *Experiments upon Vegetables, Discovering Their great Power of purifying the Common Air in the Sunshine, and of Injuring it in the Shade and at Night* (1779).

[55] Nikolaus Joseph von Jacquin (1727–1817), botanist and chemist, studied medicine at Leiden. From 1754 to 1759 he was sent by Kaiser Franz I (1708–1765) to the West Indies on a botanical expedition. In

1768 he became professor of botany and chemistry, and director of the botanical gardens, at the University of Vienna. ED refers to his *Hortus botanicus Vindobonensis* [Botanical Garden of Vienna] (1770–1776) in three volumes, composed of 100 botanical illustrations with commentary. Lobelia longiflora is plate 27, found in Vol. 3; the accompanying description is in Vol. 1 (p. 10).

[56] Hermann Boerhaave (1668–1738) was a Dutch physician, chemist, botanist, and educator. He was appointed professor of medicine and botany, and supervisor of the botanical garden, at Leiden in 1709; in 1718 he was appointed professor of chemistry. He taught students from all over Europe, including Linnaeus himself, and the founders of the medical school at Edinburgh where ED studied. Boerhaave and Richard Mead studied together at Leiden.

[57] Richard Mead (1673–1754), physician, collector of books and art, and patron of antiquarians, natural philosophers and naturalists. He is best known for his *Short Discourse Concerning Pestilential Contagion and the Methods to be used to Prevent it* (1720). His first publication was *A Mechanical Account of Poisons* (1702) to which ED refers here. Mead describes the Grotta de' Cani [Cave of Dogs] near Naples, which he had visited in 1695. About the collection of fumes at the bottom of the cave, he claims that he himself "found no Inconvenience by standing in it," but if "a Dog, or any other Creature, is forcibly held below" or "can't hold its Head above […] It presently, like one stunn'd, looses all Motion, falls down as Dead, or in a Swoon" and if "left there a little longer" would be "Irrecoverable; But if snatch'd out, and laid in the open Air, soon comes to Life again, and sooner if thrown into the adjacent *Lake*" (pp. 153–54).

[58] Line 216 is misnumbered as 215. All of the following line numbers in this canto are off by one. To avoid confusion when comparing with the page images, the incorrect numbering is not emended here.

[59] Volney was the pen name of Constantin-François de Chasseboeuf (1757–1820), French traveller and philosopher. His *Voyage en Syrie et en Égypte, pendant les années 1783, 1784 et 1785* was published in 1787, and translated into English in the same year, as *Travels through Syria and Egypt, in the years 1783, 1784, and 1785*. He discusses Palmyra in Volume 2, Chapter 30, "Of the Pachalic of Damascus"; the facts ED cites are on p. 282. The ruins of Palmyra would also figure in the 1791 work by Volney that had great influence on British radicalism, *The Ruins, or a Survey of the Revolutions of Empires* (1791).

[60] The island of Java is in Indonesia, between the Java Sea and the Indian Ocean, southeast of Sumatra. In the eighteenth century (including ED's time) it was mainly under Dutch control.

[61] 1789: "Soft breathes the breeze,"

[62] A wreath for the head, usually of flowers or leaves, or of gold and jewels.

[63] From which there is no return.

[64] The Upas, as described in ED's verse and notes, is a fantastical, exaggerated version of a real tree (later called Antiaris toxicaria) that actually grows in Java and produces poisonous latex that has long been used on poisoned arrows. Accounts of the mythic Upas date back to the fourteenth century; the 1783 article by Foersch, referenced by ED, draws upon previous writings but is the most notoriously sensationalist account of the tree. For a history of writings on the

Upas, see Tim Hanningan, "Beyond control: Orientalist tensions and the history of the 'upas tree' myth" (*The Journal of Commonwealth Literature* 55.2 (2018): pp. 173–89).

[65] In Greco-Roman mythology, the hydra was a poisonous water-snake monster with several heads; if one was cut off, more grew in its place. Killing it was one of the labors of Heracles / Hercules.

[66] The language of Malaysia, Brunei, and parts of Indonesia.

[67] This article, "Description of the Poison-Tree, in the Island of Java," was published in the *London Magazine*, New Series Vol. 1, December 1783 (pp. 512–17). The *London Magazine* lists the author incorrectly as "N. P. Foersch" after the title, and correctly as "J. N. Foersch" at the end of the article. John Nichols Foersch travelled in Java but never visited Surakarta as the article claims, and he was not a surgeon at Batavia (now Jakarta) in 1774, but a Surgeon Third Class for the Dutch East India Company, stationed at Semarang (a port on the north coast of Java) in 1775–1776, and then became Senior Surgeon. Later he was a surgeon's mate on an English ship (the *Powerful*) and was in London in 1783. (See John Bastin, "New Light on J. N. Foersch and the Celebrated Poison Tree of Java," *Journal of the Malaysian Branch of the Royal Asiatic Society* 58.2 (1985) pp. 25–44; pp. 37–8.) A preface to the article in the *London Magazine* allows that Foersch's account "appears so *marvellous*, that even the Credulous might be staggered." It insists that "this narrative certainly merits attention and belief," but does recognize that it is probably a mix of fact and fiction: "With regard to the principal parts of the relation, there can be no doubt. The existence of the tree, and the noxious powers of its gums and vapours, are certain. For the story of the *thirteen* concubines, however, we should not choose to be responsible" (p. 512). The Batavian Society of Experimental Philosophy investigated Foersch's claims and published a refutation, written in Dutch, in 1789 ("Aenmerkingen over de beschryving van den vergifboom, in het Maleitsch genoemd *Pohoon Upas*, die, volgens het verhael van N. P. Foersch, op het eiland Java to vinden zoude zyn", *Nieuwe algemeene Vaderlandsche letter-oefeningen, waarin de boeken schriften, die dagelyks in ons Vaderland en elders uitkomen,* Vol. 4, No. 2 (1789): pp. 104–9, 153–9). In 1793, George Staunton (1737–1801), secretary to Lord Macartney's embassy to China, made enquiries about the Upas when the embassy visited Java in 1793, and obtained a Latin translation of the Batavian Society's report, which he sent to Joseph Banks. In his reply to Staunton, Banks wrote, "I am glad the dutch have had the Sense to Contradict Foersch's Foolish account of the Cayu upas for the Sake of weak minds I have it in Contemplation to give the Paper to Nichols for publication in the Gent Mag in order that truth may be restord to the Public" (Neil Chambers, ed. *The Indian and Pacific Correspondence of Sir Joseph Banks, 1768–1820, Volume 4, Letters 1792–1798* (Pickering & Chatto, 2011), p. 198). The *Gentleman's Magazine* published a summary in English in May 1794 ("Observations concerning the poisonous tree called by the Malays Pohoon Upas, and said by N. P. Foersch, to grow in the Island of Java," *Gentleman's Magazine*, Vol. 64, No. 1 (1794): pp. 433–35). However, the Batavian Society's report mainly refutes the surrounding details without providing more accurate botanical information; indeed, it goes to the opposite extreme of claiming that "the island of Java

produces no such tree" (p. 435). Accurate botanical information about the Upas would only be published after ED's lifetime, by Jean-Baptiste Leschenault de la Tour in 1810 (who officially named it Antiaris toxicaria), and Thomas Horsfield in 1816. (Leschenault de la Tour, "Mémoire Sur le Strychnos tieute et l'Antiaris toxicaria, plantes vénéneuses de l'île de Java, avec le suc desquelles les indigènes empoisonnent leurs flèches; et Sur l'Andira harsfieldii, plante médicinale du même pays" *Annales du muséum d'histoire naturelle* Tome 16, 1810, pp. 459–82; Horsfield, "An Essay on the Oopas, or Poison-Tree of Java," *Asiatic Journal and Monthly Register for British India and Its Dependencies*, Vol. 1 (January–June 1816): pp. 542–47; continued in Vol.2, June–December 1816, pp. 12–27.

[68] All editions misspell the name "Foereh" here, except 1799 which has the correct spelling.

[69] Actually a reprinting of Foersch's entire article. Another account is inserted in 1794 and 1799. See Additional Notes.

[70] A scion is a descendant, especially of nobility; an heir. The word also has a botanical sense: a branch or shoot from the main stem or root of a plant; a runner; a cutting for grafting or planting.

[71] 1789: "—Chain'd at his root two infant Dæmons dwell, / Breathe the soft hiss, or try the tender yell;"

[72] Not yet feathered.

[73] Lines III:259–326 on Orchis and Eliza (from "With blushes" to "aching breast."), and the note on Orchis, do not appear in 1789.

[74] 1791, 1794, 1799: "the new bulbs; the root, after it has flowered, dies"

[75] 1791, 1794, 1799: "of the bulb;"

[76] Unidentified; presumably a local acquaintance of ED's.

[77] Inserted 1791, 1794, 1799. ED refers to *The Economy of Vegetation*, Additional Note XIV.—Buds and Bulbs.

[78] The battle of Minden (1759) occurred during the Seven Years' War (1756–1763). A French army seized Minden, a German town that guarded access to Hanover. They were surrounded by British, Hanoverian, and Hessian troops under Ferdinand of Brunswick (1721–1792). A brigade of British infantry misinterpreted orders and launched a frontal assault on French cavalry. Despite suffering one-third casualties, they held their ground. Lord George Sackville (1716–1785) initially refused to give the order for the allied cavalry to advance, but eventually the infantry received support. The battle lasted five hours. The French were severely defeated. Colonel Edward Sacheverel Pole (1717–1780), patient of ED and husband of Elizabeth Pole (1747–1832) whom ED would marry in 1781, fought at the battle of Minden where he was shot through the head but survived (see King-Hele, *Life* pp. 126–27). The story of Eliza is apparently a historical fiction invented by ED.

[79] See Additional Notes where it is explained that these two "lines were by mistake omitted." They are included at this point in 1791, 1794, and 1799.

[80] Corrected as indicated in the Errata.

[81] Linnaeus's *Species Plantarum* (first published 1753), along with *Systema Vegetabilium* (the botanical portion of *Systema Naturæ*, first published separately in 1774), and the first and second *Mantissa Plantarum* ("mantissa" means "supplement") (1767, 1771), are

contained in *Systema Plantarum* (1779–1780), edited by Johann Jacob Reichard (1743–1782). Reichard was a physician and botanist of Frankfurt. He also made the new edition of *Genera Plantarum* (1778) on which ED and the Botanical Society of Lichfield based the translation, *The Families of Plants* (1787). Reichard had studied at Göttingen with Johan Andreas Murray (1740–1791), who was a student of Linnaeus and edited the 13th (1774) and 14th (1784) editions of *Systema Vegetabilium*.

[82] Thomas Martyn (1735–1825), botanist and clergyman in the Church of England, was professor of botany at the University of Cambridge (as was his father before him, John Martyn (1699–1768)). His *Letters on the Elements of Botany, Addressed to a Lady* (1785) are a translation and continuation of Rousseau's *Lettres Élémentaires sur la Botanique*, which appeared posthumously in the 1782 *Collection Complète des Œuvres de J. J. Rousseau*. ED quotes verbatim from Letter 15 (p. 174).

[83] A river that rises in Mount Ida and flows into the Hellespont.

[84] A Trojan priest who warned the Trojans not to accept the wooden horse offered by the Greeks, which turned out to contain soldiers who at night came out and captured the city. As punishment by the gods for his opposition, and specifically for his having pierced the wooden horse with a spear, he and his two sons were crushed to death by two enormous sea-serpents. The story is most famously told in the *Aeneid* (Book 2: 199–231). The depiction of the subject in sculpture known as *Laocoön*, carved in the 2nd or 1st century CE, was rediscovered in 1506 and influenced Michelangelo. It was also influential on eighteenth-century aesthetic theory through the writings of Johann Joachim Winckelmann (1717–1768) and Gotthold Ephraim Lessing (1729–1781). Winckelmann's *Gedanken über die Nachahmung der griechischen Werke in der Malerei und Bildhauerkunst* (1755) (translated by Henry Fuseli (1741–1825) as *Reflections on the Painting and Sculpture of the Greeks* (1765)) and G. E. Lessing's treatise *Laokoon oder über die Grenzen der Malerei und Poesie* [Laocoon or the Limits of Painting and Poetry] (1766) both contrasted a decorous, stoical restraint in the expression of pain in the sculpture with a lack of restraint in the *Aeneid* verses.

[85] This sentence (from "Other plants" to "westward.") does not appear in 1789.

[86] Linnaeus's *Species Plantarum* (first published 1753), along with *Systema Vegetabilium* (the botanical portion of *Systema Naturæ*, first published separately in 1774), and the first and second *Mantissa Plantarum* ("mantissa" means "supplement") (1767, 1771), are contained in *Systema Plantarum* (1779–1780), edited by Johann Jacob Reichard (1743–1782). Reichard was a physician and botanist of Frankfurt. He also made the new edition of *Genera Plantarum* (1778) on which ED and the Botanical Society of Lichfield based the translation, *The Families of Plants* (1787). Reichard had studied at Göttingen with Johan Andreas Murray (1740–1791), who was a student of Linnaeus and edited the 13th (1774) and 14th (1784) editions of *Systema Vegetabilium*.

[87] In Greco-Roman mythology, the thyrsus is the staff associated with Dionysus / Bacchus, god of wine, and his devotees; it is tipped with a pine-cone-shaped ornament and sometimes twined with ivy or vine. As a botanical term, a thyrsus is a form of inflorescence with a

compact branching cluster of flowers, especially with main centripetal and secondary centrifugal branching, as in Vitis.

[88] A disease characterized by painful inflammation of the joints.

[89] A disease characterized by accumulation of watery fluid in cavities lined with serous membranes, or in connective tissue.

[90] Leprosy, a disease that causes scaliness, scabbiness, or loss of pigmentation of the skin.

[91] Delirium, or the uncontrollable rage or excitement of a manic episode.

[92] This Dr. Darwin is ED's son Charles (1758–1778). He studied medicine at the University of Edinburgh and wrote this treatise in Latin for his inaugural thesis. The theory on diabetes and dropsy is explained in sections IV and V. An English translation, entitled "An Account of the Retrograde Motions of the Absorbent Vessels of Animal Bodies in Some Diseases," together with another essay by Charles, "Experiments Establishing a Criterion between Mucaginous and Purulent Matter," was published by ED in 1780 (and sold by Thomas Cadell (1742–1802)), after Charles died tragically young from having cut himself while dissecting the brain of a child who had died of hydrocephalus internus (King-Hele, *Life*, p. 142).

[93] In Greco-Roman mythology, Prometheus is a Titan who aids humans in several ways, including stealing fire for them to use, when it had been withheld from them by Zeus. Zeus had Hephaestus / Vulcan chain or nail Prometheus to a rock in the Caucasus mountains where an eagle devoured his liver every day, only for it to grow back every night. The story is told by several classical authors, including Hesiod (who lived c. 700 BCE) in both *Theogony* (lines 507–616) and *Works and Days* (lines 47–105), and Aeschylus (?525/4–456/5 BCE) in the play *Prometheus Bound* which begins with Prometheus being nailed to the rock. According to Hesiod, when Prometheus stole fire, he hid it in a hollow fennel stalk.

[94] Zeus.

[95] 1789: "So when PROMETHEUS, fearless of his ire, / Stole from the throne of JOVE forbidden fire;"

[96] Prometheus is sometimes represented as creating humans out of clay and water (for example, in Ovid, *Metamorphoses*, 1:76–88).

[97] Unbreakable; having the qualities of adamant, a poetic name for an extremely hard substance.

[98] 1789: "regardless of"

[99] To reduce to a powder by burning.

[100] Hardened. (The word "schirrous" is unrelated to "cirrhosis," a later term coined in 1819 by René Laennec (1781–1826).)

[101] The story of Cleone appears to be a historical fiction invented by ED.

[102] Not actually an alternative form of the name "sow-bread," "shew-bread" is a Jewish Sabbath offering of loaves.

[103] Linnaeus's *Species Plantarum* (first published 1753), along with *Systema Vegetabilium* (the botanical portion of *Systema Naturæ*, first published separately in 1774), and the first and second *Mantissa Plantarum* ("mantissa" means "supplement") (1767, 1771), are contained in *Systema Plantarum* (1779–1780), edited by Johann Jacob Reichard (1743–1782). Trifolium subterraneum and Trifolium globosum are found in Vol. 3, pp. 550–51. Reichard was a physician

and botanist of Frankfurt. He also made the new edition of *Genera Plantarum* (1778) on which ED and the Botanical Society of Lichfield based the translation, *The Families of Plants* (1787). Reichard had studied at Göttingen with Johan Andreas Murray (1740–1791), who was a student of Linnaeus and edited the 13th (1774) and 14th (1784) editions of *Systema Vegetabilium*.

[104] Both "Chartreuse" and "Charter-house" are derived from the French *maison chartreuse*, a monastery of the Carthusian order of Catholic monks. The Charterhouse in London was a charitable foundation and school founded in 1611 in a former Carthusian monastery that was built in 1371 on the site of a Black Death plague burial ground dating from 1348. (The foundation continues to operate at the original site; the school moved to Surrey in 1872.)

[105] A historical fiction by Daniel Defoe (1660?–1731). The title page of the first edition (1722) gives the author (Defoe's narrative persona) as "a CITIZEN who continued all the while in *London.*" E. Nutt is printer and bookseller Elizabeth Nutt (b. in or before 1666, d. 1746).

[106] Lake Ontario, the easternmost of the Great Lakes, between what is now the province of Ontario in Canada and New York State in the United States. It is fed mainly by the Niagara River and drained by the St. Lawrence River.

[107] In 1789, this note appears with the Additional Notes.

[108] Germinate.

[109] "Rariora Norvegiæ" [Norwegian Rarities], a dissertation proposed by Henricus Tonning, no. CXLIX in *Amœnitates Academicæ* Vol. 7 (1769): pp. 466–86. *Amœnitates Academicæ* [Academic Delights] (1749–1790) was a series directed by Linnaeus that published dissertations in Latin by scholars of natural history at the University of Uppsala. Most of these dissertations were written primarily by Linnaeus, with the student acting as an assistant.

[110] In 1789, this paragraph appears in a Supplement placed after the indexes.

[111] Physician and collector Hans Sloane (1660–1753) acquired many natural history specimens from his own travels (particularly in the West Indies) and from others. His vast collection and library became one of the founding collections of the British Museum. He was President of the Royal Society from 1727 to 1741. ED's reference is to the summary, "Strange Beans frequently cast ashore on the Orkney's," Chapter 3, section 6 (pp. 540–41) in John Lowthorp (1658/9–1724), *The Philosophical Transactions and Collections To the End of the Year 1700, Abridg'd and Dispos'd under General Heads*, Vol. 3 (first published 1705). The original article, "An Account of Four sorts of strange Beans, frequently cast on Shoar on the Orkney Isles, with some Conjectures about the way of their being brought thither from Jamaica, where Three sorts of them grow," can be found in the unabridged *Philosophical Transactions of the Royal Society of London*, Vol. 19 (1695–1697), pp. 298–300.

[112] The error "Francklin" appears only in 1790. Benjamin Franklin (1706–1790), American printer, scientist, politician, and revolutionary. He and ED corresponded, and Franklin visited ED briefly in 1771 and 1772. "A Letter from Dr. Benjamin Franklin, to Mr. Alphonsus le Roy, Member of Several Academies, at Paris. Containing Sundry Maritime Observations" was published in *Transactions of the American*

Philosophical Society, Vol. 2 (1786): pp. 294–29. Franklin explains that he was consulted on the topic "about the year 1769 or 70" (p. 314). Captain Folger was Timothy Folger, Franklin's cousin and a Nantucket ship's captain.

[113] Charles Blagden (bap. 1748, d. 1820) was an army surgeon and served in the American War of Independence. As secretary of the Royal Society from 1784 to 1797, he oversaw the publication of *Philosophical Transactions* and worked closely with naturalist and patron of science Joseph Banks (1743–1820), who was president of the society at the time. ED refers to Blagden's article, "On the Heat of the Water in the Gulf-Stream," *Philosophical Transactions of the Royal Society of London*, Vol. 71 (1781): pp. 334–44.

[114] Thomas Pownall (1722–1805) was Governor of Massachusetts (1757–1759) and later a member of the British Parliament (1774–1780). He was considered an expert on colonial affairs, particularly the American colonies, and known for his *Administration of the Colonies* (1764). He also wrote on geography and antiquarianism.

[115] The mother of Moses. In the biblical book of Exodus, when the Israelites were enslaved in Egypt, Pharaoh commanded that "Every son that is born ye shall cast into the river." When the mother of Moses gave birth to him, and "could not longer hide him, she took for him an ark of bulrushes, and daubed it with slime and with pitch, and put the child therein; and she laid it in the flags by the river's brink." The baby was found by Pharaoh's daughter who saved him and raised him as her adopted son (Exodus 1:22–2:11). Moses would grow up to lead the Israelites out of slavery.

[116] Ancient city of Egypt, formerly the capital.

[117] Flags are plants with bladed leaves that grow in moist places. ED may be thinking of papyrus, which is also called "paper reed."

[118] Thomas Pownall (1722–1805), *Hydraulic and Nautical Observations on the Currents in the Atlantic Ocean* (1787), a pamphlet that also includes additional notes by Benjamin Franklin.

[119] This clause, from "which might" to "continent.", does not appear in 1789.

[120] 1794 and 1799 have a question mark instead of an exclamation point.

[121] The East Indies and the West Indies.

[122] 1789: "The close recesses of the heart within, / Stern CONSCIENCE sits, the arbiter of Sin;"

[123] 1789: "Lights his dark mind,"

[124] 1789: "Nor vernal suns, that gild the rising morn,"

[125] 1794: "Shine with such lustre as the tear, that flows / Down Virtue's manly cheek for others' woes." In 1799 the lines are the same as in 1794 but include the closing quotation mark that indicates the end of the Muse's speech, omitted in 1794.