

( 59 )

T H E  
L O V E S  
O F T H E  
P L A N T S.

---

C A N T O II.

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**A** GAIN the Goddess strikes the golden lyre,  
And tunes to wilder notes the warbling wire;  
With soft suspended step Attention moves,  
And Silence hovers o'er the listening groves;  
Orb within orb the charmed audience throng,                   5  
And the green vault reverberates the song.

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“Breathe soft, ye gales!” The fair CARLINA cries,  
“Bear on broad wings your Votress<sup>1</sup> to the skies.  
“How sweetly mutable yon orient hues,  
“As Morn’s fair<sup>2</sup> hand her opening roses strews;           10  
“How bright, when Iris<sup>3</sup> blending many a ray  
“Binds in embroider’d wreath the brow of Day;  
“Soft, when the pendant Moon with lustres pale  
“O’er heaven’s blue arch unfurls her milky veil;  
“While from the north long threads of silver light           15  
“Dart on swift shuttles oe’r the tissued night!

*Carlina*. l. 7. Carline Thistle. Of the class Confederate Males. The seeds of this and of many other plants of the same class are furnished with a plume, by which admirable mechanism they perform long aërial journeys, crossing lakes and deserts, and are thus disseminated far from the original plant, and have much the appearance of a Shuttlecock<sup>4</sup> as they fly. The wings are of different construction, some being like a divergent tuft of hairs, others are branched like feathers, some are elevated from the crown of the seed by a slender foot-stalk, which gives them a very elegant appearance, others sit immediately on the crown of the seed.

Nature has many other curious vegetable contrivances for the dispersion of seeds: see note on *Helianthus*. But perhaps none of them has more the appearance of design than the admirable apparatus of *Tillandsia* for this purpose. This plant grows on the branches of trees, like the mistleto, and never on the ground; the seeds are furnished with many long threads on their crowns; which, as they are driven forwards by the winds, wrap round the arms of trees, and thus hold them fast till they vegetate.<sup>5</sup> This is very analogous to the migration of Spiders on the gossamer, who are said to attach themselves to the end of a long thread, and rise thus to the tops of trees or buildings, as the accidental breezes carry them.

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“Breathe soft, ye Zephyrs! Hear my fervent sighs,  
“Bear on broad wings your Votress to the skies!”—  
—Plume over plume in long divergent lines  
On whale-bone ribs the fair Mechanic joins;                   20  
Inlays with eider down the silken strings,  
And weaves in wide expanse Dædalian<sup>6</sup> wings;  
Round her bold sons the waving pennons<sup>7</sup> binds,  
And walks with angel-step upon the winds.

So on the shoreless air the intrepid Gaul<sup>8</sup>                   25  
Launch'd the vast concave of his buoyant ball.—  
Journeying on high, the silken castle glides  
Bright as a meteor through the azure tides;  
O'er towns and towers and temples wins its way,  
Or mounts sublime, and gilds the vault of day.                   30  
Silent with upturn'd eyes unbreathing crowds  
Pursue the floating wonder to the clouds;  
And, flush'd with transport or benumb'd with fear,  
Watch, as it rises, the diminish'd sphere.

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—Now less and less!—and now a speck is seen!— 35  
And now the fleeting rack<sup>9</sup> obtrudes between!—  
With bended knees, raised arms, and suppliant brow  
To every shrine with mingled cries they vow.—<sup>10</sup>  
“Save him, ye Saints! who o’er the good preside;  
“Bear Him, ye Winds! ye Stars benignant! guide.” 40  
—The calm Philosopher in ether sails,  
Views broader stars, and breathes in purer gales;  
Sees, like a map, in many a waving line  
Round Earth’s blue plains her lucid waters shine;  
Sees at his feet the forky lightnings glow, 45  
And hears innocuous thunders roar below.  
——Rise, great MONGOLFIER! urge thy venturous flight  
High o’er the Moon’s pale ice-reflected light;  
High o’er the pearly Star,<sup>11</sup> whose beamy horn  
Hangs in the east, gay harbinger of morn; 50  
Leave the red eye of Mars on rapid wing,  
Jove’s silver guards,<sup>12</sup> and Saturn’s dusky<sup>13</sup> ring;  
Leave the fair beams, which, issuing from afar,  
Play with new lustres round the Georgian star;<sup>14</sup>

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Shun with strong oars the Sun's attractive throne,                   55  
The sparkling<sup>15</sup> zodiack, and the milky zone;  
Where headlong Comets with increasing force  
Through other systems bend their blazing course.—  
For thee Cassiope<sup>16</sup> her chair withdraws,  
For thee the Bear<sup>17</sup> retracts his shaggy paws;                   60  
High o'er the North thy golden orb shall roll,  
And blaze eternal round the wondering pole.  
So Argo,<sup>18</sup> rising from the southern main,  
Lights with new stars the blue ethereal plain;  
With favoring beams the mariner protects,                   65  
And the bold course, which first it steer'd, directs.

Inventress of the Woof,<sup>19</sup> fair LINA flings  
The flying shuttle<sup>20</sup> through the dancing strings;

*For thee the Bear.* l. 60. Tibi jam brachia contrahit ardens Scorpius. Virg. Georg. l. 1. 34.<sup>21</sup> A new star appeared in Cassiope's chair in 1572. Herschel's Construction of the Heavens.<sup>22</sup> Phil. Trans. V. 75. p. 266.<sup>23</sup>

*Linum.* l. 67. Flax Five males and five females. It was first found on the banks of the Nile. The *Linum Lusitanicum*, or portugal<sup>24</sup> flax, has ten males: see the note on Curcuma. Isis<sup>25</sup> was said to invent spinning and weaving: mankind before that time were clothed with the skins of animals. The fable of Arachne<sup>26</sup> was to compliment this new art of spinning and weaving, supposed to surpass in fineness the web of the Spider.

( 64 )

Inlays the broider'd weft<sup>27</sup> with flowery dyes,  
Quick beat the reeds,<sup>28</sup> the pedals<sup>29</sup> fall and rise;                   70  
Slow from the beam<sup>30</sup> the lengths of warp unwind,  
And dance and nod the massy weights<sup>31</sup> behind.—  
Taught by her labours, from the fertile soil  
Immortal ISIS clothed the banks of Nile;  
And fair ARACHNE with her rival loom                               75  
Found undeserved a melancholy doom.—  
*Five* Sister-nymphs with dewy fingers<sup>32</sup> twine  
The beamy flax, and stretch the fibre-line;<sup>33</sup>  
Quick eddying threads from rapid spindles reel,  
Or whirl with beaten<sup>34</sup> foot the dizzy wheel.<sup>35</sup>                   80  
—Charm'd round the busy Fair *five* shepherds press,  
Praise the nice texture of their snowy dress,  
Admire the Artists, and the art approve,  
And tell with honey'd words the tale of love.

So now, where Derwent rolls his dusky floods                   85  
Through vaulted mountains, and a night of woods,

The Nymph, GOSSYPHA, treads the velvet sod,  
And warms with rosy smiles the watery God;<sup>36</sup>  
His ponderous oars to slender spindles turns,  
And pours o'er massy wheels his foamy urns!                   90  
With playful charms her hoary lover wins,  
And wields his trident,—while the Monarch spins.  
—First with nice eye emerging Naiads<sup>37</sup> cull  
From leathery pods the vegetable wool;

*Gossypia*. l. 87. *Gossypium*. The cotton plant. On the river Derwent near Matlock in Derbyshire, Sir RICHARD ARKWRIGHT<sup>38</sup> has erected his curious and magnificent machinery for spinning cotton; which had been in vain attempted by many ingenious artists before him. The cotton-wool is first picked from the pods and seeds by women. It is then carded by *cylindrical cards*, which move against each other, with different velocities. It is taken from these by an *iron-hand* or comb, which has a motion similar to that of scratching, and takes the wool off the cards longitudinally in respect to the fibres or staple, producing a continued line loosely cohering, called the *Rove* or *Roving*. This Rove, yet very loosely twisted, is then received or drawn into a *whirling canister*, and is rolled by the centrifugal force in spiral lines within it; being yet too tender for the spindle. It is then passed between *two pairs of rollers*; the second pair moving faster than the first elongate the thread with greater equality than can be done by the hand; and is then twisted on spoles or bobbins.

The great fertility of the Cotton-plant in these fine flexible threads, whilst those from Flax, Hemp, and Nettles, or from the bark of the Mulberry-tree, require a previous putrefaction of the parenchymatous<sup>39</sup> substance, and much mechanical labour, and afterwards bleaching, renders this plant of great importance to the world. And since Sir Richard Arkwright's ingenious machine has not only greatly abbreviated and simplified the labour and art of carding and spinning the Cotton-wool, but performs both these circumstances *better* than can be done by hand, it is probable, that the clothing of this small seed will become the principal clothing of mankind; though animal wool and silk may be preferable in colder climates, as they are more imperfect conductors of heat, and are thence a warmer clothing.

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With wiry teeth *revolving cards* release 95  
The tang[l]ed knots, and smooth the ravell'd fleece;  
Next moves the *iron-hand* with fingers fine,  
Combs the wide card, and forms the eternal line;  
Slow, with soft lips, the *whirling Can* acquires  
The tender skeins, and wraps in rising spires; 100  
With quicken'd pace *successive rollers* move,  
And these retain, and those extend the *rove*;  
Then fly the spoles, the rapid axles glow;—  
And slowly circumvolves the labouring wheel below.

PAPYRA, throned upon the banks of Nile, 105  
Spread her smooth leaf, and waved her silver style.<sup>40</sup>

*Cyperus. Papyrus.* l. 105. Three males, one female. The leaf of this plant was first used for paper, whence the word *paper*; and leaf, or folium, for a fold of a book. Afterwards the bark of a species of mulberry was used; whence *liber* signifies a book, and the bark of a tree. Before the invention of letters mankind may be said to have been perpetually in their infancy, as the arts of one age or country generally died with their inventors. Whence arose the policy, which still continues in Indostan, of obliging the son to practise the profession of his father. After the discovery of letters, the facts of Astronomy and Chemistry became recorded in written language, though the antient hieroglyphic characters for the planets and metals continue in use at this day. The antiquity of the invention of music, of astronomical observations, and the manufacture of Gold and Iron, are recorded in Scripture.



( 67 )

—The storied pyramid, the laurel'd bust,  
The trophy'd arch had crumbled into dust;  
The sacred symbol, and the epic song,  
(Unknown the character, forgot the tongue,) 110  
With each unconquer'd chief, or sainted maid,  
Sunk undistinguish'd in Oblivion's shade.  
Sad o'er the scatter'd ruins Genius sigh'd,  
And infant Arts but learn'd to lisp and died.  
Till to astonish'd realms POPYRA taught 115  
To paint in mystic colours Sound and Thought.  
With Wisdom's voice to print the page sublime,  
And mark in adamant the steps of Time.  
—*Three* favour'd youths her soft attention share,<sup>41</sup>  
The fond disciples of the studious Fair, 120

About twenty letters, ten cyphers,<sup>42</sup> and seven crotches,<sup>43</sup> represent by their numerous combinations all our ideas and sensations! the musical characters are probably arrived at their perfection, unless emphasis, and tone, and swell could be expressed, as well as note and time. Charles the Twelfth of Sweden had a design to have introduced a numeration by squares, instead of by decimation,<sup>44</sup> which might have served the purposes of philosophy better than the present mode, which is said to be of Arabic invention. The alphabet is yet in a very imperfect state; perhaps seventeen letters could express all the simple sounds in the European languages. In China they have not yet learned to divide their words into syllables, and are thence necessitated to employ many thousand characters; it is said above eighty thousand. It is to be wished, in this ingenious age, that the European nations would accord to reform our alphabet.

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Hear her sweet voice, the golden process prove;  
Gaze, as they learn; and, as they listen, love.  
*The first* from Alpha to Omega joins  
The letter'd tribes along the level lines;  
Weighs with nice ear the vowel, liquid,<sup>45</sup> surd,<sup>46</sup> 125  
And breaks in syllables the volant<sup>47</sup> word.  
Then forms *the next* upon the marshal'd plain  
In deepening ranks his dexterous cypher-train;  
And counts, as wheel the decimating bands,  
The dews of Ægypt, or Arabia's sands. 130  
And then *the third* on four concordant lines  
Prints the lone crotchet, and the quaver<sup>48</sup> joins;  
Marks the gay trill, the solemn pause inscribes,  
And parts with bars the undulating tribes. 134  
Pleased round her cane-wove throne, the applauding crowd  
Clap'd their rude hands, their swarthy foreheads bow'd;  
With loud acclaim "a present God!" they cry'd,  
"A present God!" rebelling shores reply'd.—  
Then peal'd at intervals with mingled swell  
The echoing harp, shrill clarion, horn, and shell; 140

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While Bards ecstatic, bending o'er the lyre,  
Struck deeper chords, and wing'd the song with fire.  
Then mark'd Astronomers with keener eyes  
The Moon's refulgent journey through the skies;  
Watch'd the swift Comets urge their blazing cars,           145  
And weigh'd the Sun with his revolving Stars.  
High raised the Chemists their Hermetic<sup>49</sup> wands,  
(And changing forms obey'd their waving hands,)  
Her treasur'd gold from Earth's deep chambers tore,<sup>50</sup>  
Or fused and harden'd her chalybeate<sup>51</sup> ore.           150  
All with bent knee from fair PAPHYRA claim  
Wove by her hands the wreath of deathless fame.  
——Exulting Genius crown'd his darling child,  
The young Arts clasp'd her knees, and Virtue smiled.

So now DELANY<sup>52</sup> forms her mimic bowers,           155  
Her paper foliage, and her silken flowers;<sup>53</sup>

*So now Delany*. l. 155. Mrs. Delany has finished nine hundred and seventy accurate and elegant representations of different vegetables with the parts of their flowers, fructification, &c. according with the classification of Linneus, in what she terms paper-mosaic. She began this work at the age of 74, when her sight would no longer serve her to paint, in which she much excelled; between her age of 74 and 82, at which time her eyes

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Her virgin train the tender scissars ply,  
Vein the green leaf, the purple petal dye:  
Round wiry stems the flaxen tendril bends,  
Moss creeps below, and waxen fruit impends.                   160  
Cold Winter views amid his realms of snow  
DELANY's vegetable statues blow;  
Smooths his stern brow, delays his hoary wing,  
And eyes with wonder all the blooms of spring.

The gentle LAPSANA, NYMPHÆA fair,                                   165  
And bright CALENDULA with golden hair,

quite failed her, she executed the curious Hortus siccus<sup>54</sup> above-mentioned, which I suppose contains a greater number of plants than were ever before drawn from the life by any one person. Her method consisted in placing the leaves of each plant with the petals, and all the other parts of the flowers, on coloured paper, and cutting them with scissars accurately to the natural size and form, and then pasting them on a dark ground; the effect of which is wonderful, and their accuracy less liable to fallacy than drawings. She is at this time (1788) in her 89th year, with all the powers of a fine understanding still unimpaired. I am informed another very ingenious lady, Mrs. North,<sup>55</sup> is constructing a similar Hortus siccus, or Paper-garden; which she executes on a ground of vellum with such elegant taste and scientific accuracy, that it cannot fail to become a work of inestimable value.

*Lapsana, Nymphaea alba, Calendula*. l. 165. And many other flowers close and open their petals at certain hours of the day; and thus constitute what Linneus calls the Horologe, or Watch of Flora.<sup>56</sup> He enumerates 46 flowers, which possess this kind of

Watch with nice eye the Earth's diurnal way,  
Marking her solar and sidereal<sup>57</sup> day,  
Her slow nutation,<sup>58</sup> and her varying clime,  
And trace with mimic art the march of Time;                   170  
Round his light foot a magic chain they fling,  
And count the quick vibrations of his wing.—

sensibility. I shall mention a few of them with their respective hours of rising and setting, as Linneus terms them. He divides them first<sup>59</sup> into *meteoric* flowers, which less accurately observe the hour of unfolding, but are expanded sooner or later, according to the cloudiness, moisture, or pressure of the atmosphere. 2d. *Tropical* flowers open in the morning and close before evening every day; but the hour of the expanding becomes earlier or later, as the length of the day increases or decreases. 3dly. *Æquinoctial* flowers, which open at a certain and exact hour of the day, and for the most part close at another determinate hour.

Hence the Horologe or Watch of Flora is formed from numerous plants, of which the following are those most common in this country. *Leontodon taraxacum*, Dandelion, opens at 5—6, closes at 8—9. *Hieracium pilosella*, mouse-ear hawkweed, opens at 8, closes at 2. *Sonchus lœvis*, smooth Sow-thistle, at 5 and at 11—12. *Lactuca sativa*, cultivated Lettice, at 7 and 10. *Tragopogon luteum*, yellow Goatsbeard, at 3—5 and at 9—10. *Lapsana*, nipplewort, at 5—6 and at 10—1. *Nymphæa alba*, white water lily, at 7 and 5. *Papaver nudicaule*, naked poppy, at 5 and 7. *Hemerocallis fulva*, tawny Day-lily, at 5 and at 7—8. *Convolvulus*, at 5—6. *Malva*, Mallow, at 9—10, and at 1. *Arenaria purpurea*, purple Sandwort, at 9—10, and at 2—3. *Anagallis*, pimpernel, at 7—8. *Portulaca hortensis*, garden Purslain, at 9—10, and at 11—12. *Dianthus prolifer*, proliferous Pink, at 8 and at 1. *Cichorium*. Succory, at 4—5. *Hypochæris*, at 6—7, and at 4—5. *Crepis* at 4—5, and at 10—11. *Picris*, at 4—5, and at 12. *Calendula field*, at 9, and at 3. *Calendula African*, at 7, and at 3—4.

As these observations were probably made in the botanic gardens at Upsal,<sup>60</sup> they must require further attention to suit them to our climate. See Stillingfleet's *Calendar of Flora*.<sup>61</sup>



( 73 )

Feeds from its baby-hand, with many a kiss,  
The callow<sup>69</sup> nestlings of domestic Bliss.

As yon gay clouds, which canopy the skies, 195  
Change their thin forms, and lose their lucid dyes;  
So the soft bloom of Beauty's vernal charms  
Fades in our eyes, and withers in our arms.  
—Bright as the silvery plume, or pearly shell,  
The snow-white rose, or lily's virgin bell, 200  
The fair HELLEBORAS attractive shone,  
Warm'd every Sage, and every Shepherd won.—  
Round the gay sisters press the *enamour'd bands*,  
And seek with soft solicitude their hands.  
—Ere while how chang'd!—in dim suffusion lies 205  
The glance divine, that lighten'd in their eyes;

*Helleborus*. 1. 201. Many males, many females. The *Helleborus niger*, or Christmas rose, has a large beautiful white flower, adorned with a circle of tubular two-lipp'd nectaries. After impregnation the flower undergoes a remarkable change, the nectaries drop off, but the white corol remains, and gradually becomes quite green. This curious metamorphose of the corol, when the nectaries fall off, seems to shew that the white juices of the corol were before carried to the nectaries, for the purpose of producing honey: because when these nectaries fall off, no more of the white juice is secreted in the corol, but it becomes green, and degenerates into a calyx. See note on *Lonicera*. The nectary of the *Tropæolum*, garden nasturtion, is a coloured horn growing from the calyx.

( 74 )

Cold are those lips, where smiles seductive hung,  
And the weak accents linger on their tongue;  
Each roseat feature fades to livid green,—  
—Disgust with face averted shuts the scene. 210

So from his gorgeous throne, which awed the world,  
The mighty Monarch of the east<sup>70</sup> was hurl'd,  
To dwell with brutes beneath the midnight storm,  
By Heaven's just vengeance changed in mind and form.<sup>71</sup>  
—Prone to the earth He bends his brow superb, 215  
Crops the young floret and the bladed herb;  
Lolls his red tongue, and from the reedy side  
Of slow Euphrates<sup>72</sup> laps the muddy tide.  
Long eagle-plumes his arching neck invest,  
Steal round his arms, and clasp his sharpen'd breast; 220  
Dark brinded<sup>73</sup> hairs in bristling ranks, behind,  
Rise o'er his back, and rustle in the wind,  
Clothe his lank sides, his shrivel'd limbs surround,  
And human hands with talons print the ground.  
Silent in shining troops the Courtier-throng 225  
Pursue their monarch as he crawls along;



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E'en Beauty pleads in vain with smiles and tears,  
Nor Flattery's self can pierce his pendant ears.

*Two Sister-Nymphs to Ganges*<sup>74</sup> flowery brink  
Bend their light steps, the lucid water drink,                   230  
Wind through the dewy rice, and nodding canes,  
(As *eight* black Eunuchs guard the sacred plains),  
With playful malice watch the scaly brood,  
And shower the inebriate berries on the flood.—  
Stay in your crystal chambers, silver tribes!                   235  
Turn your bright eyes, and shun the dangerous bribes;  
The tramel'd net with less destruction sweeps  
Your curling shallows, and your azure deeps;  
With less deceit, the gilded fly beneath,  
Lurks the fell hook unseen,—to taste is death!—           240  
—Dim your slow eyes, and dull your pearly coat,  
Drunk on the waves your languid forms shall float,

*Two Sister-Nymphs*. 1. 229. *Menisper[m]um. Cocculus*. Indian berry. Two houses, twelve males. In the female flower there are two styles and eight filaments without anthers on their summits; which are called by Linneus eunuchs. See the note on *Curcuma*. The berry intoxicates fish. Saint Anthony of Padua,<sup>75</sup> when the people refused to hear him, preached to the fish, and converted them. Addison's travels in Italy.<sup>76</sup>

( 76 )

On useless fins in giddy circles play,  
And Herons and Otters seize you for their prey.—

So, when the Saint from Padua's graceless land                    245  
In silent anguish fought the barren strand,  
High on the shatter'd beech sublime He stood,  
Still'd with his waving arm the babbling flood;  
"To Man's dull ear," He cry'd, "I call in vain,  
"Hear me, ye scaly tenants of the main!"—  
Misshapen Seals approach in circling flocks,                    250<sup>77</sup>  
In dusky mail the Tortoise climbs the rocks,  
Torpedoes, Sharks, Rays, Porpus, Dolphins, pour  
Their twinkling squadrons round the glittering shore;  
With tangled fins, behind, huge Phocæ<sup>78</sup> glide,                    255  
And Whales and Grampi swell the distant tide.  
Then kneel'd the hoary Seer, to heaven address'd  
His fiery eyes, and smote his sounding breast;  
"Bless ye the Lord!" with thundering voice he cry'd,  
"Bless ye the Lord!" the bending shores reply'd;  
The winds and waters caught the sacred word,  
And mingled echoes shouted "Bless the Lord!"

( 77 )

The listening shoals the quick contagion feel,  
Pant on the floods, inebriate with their zeal,  
Ope their wide jaws, and bow their slimy heads,           265  
And dash with frantic fins their foamy beds.

Sopha'd on silk, amid her charm-built towers,  
Her meads of asphodel,<sup>79</sup> and amaranth<sup>80</sup> bowers,  
Where Sleep and Silence guard the soft abodes,  
In sullen apathy PAPAVER nods.                           270  
Faint o'er her couch in scintillating streams  
Pass the thin forms of Fancy and of Dreams;  
Froze by enchantment on the velvet ground  
Fair youths and beauteous ladies glitter round;

*Papaver*. l. 270. Poppy. Many males, many females. The plants of this class are almost all of them poisonous; the finest opium is procured by wounding the heads of large poppies with a three-edged knife, and tying muscle-shells to them to catch the drops. In small quantities it exhilarates the mind, raises the passions, and invigorates the body: in large ones it is succeeded by intoxication, languor, stupor and death. It is customary in India for a messenger to travel above a hundred miles without rest or food, except an appropriated bit of opium for himself, and a larger one for his horse at certain stages. The emaciated and decrepid appearance, with the ridiculous and idiotic gestures, of the opium-eaters in Constantinople is well described in the Memoirs of Baron de Tott.<sup>81</sup>

( 78 )

On crystal pedestals they seem to sigh, 275  
Bend the meek knee, and lift the imploring eye.<sup>82</sup>  
—And now the Sorceress bares her shrivel'd hand,  
And circles thrice in air her ebon wand;  
Flush'd<sup>83</sup> with new life descending statues talk,  
The pliant marble softening as they walk; 280  
With deeper sobs reviving lovers breathe,  
Fair bosoms rise, and soft hearts pant beneath;<sup>84</sup>  
With warmer lips relenting damsels speak,  
And kindling<sup>85</sup> blushes tinge the Parian<sup>86</sup> cheek;  
To viewless lutes aërial voices sing, 285  
And hovering Loves are heard on rustling wing.  
—She waves her wand again!—fresh horrors seize  
Their stiffening limbs, their vital currents freeze;  
By each cold nymph her marble lover lies,  
And iron slumbers seal their glassy eyes. 290  
So with his dread Caduceus HERMES<sup>87</sup> led  
From the dark regions of the imprison'd dead,  
Or drove in silent shoals the lingering train  
To Night's dull shore, and PLUTO's<sup>88</sup> dreary reign.

( 79 )

So with her waving pencil<sup>89</sup> CREWE<sup>90</sup> commands 295  
The realms of Taste, and Fancy's fairy lands;  
Calls up with magic voice the shapes, that sleep  
In earth's dark bosom, or unfathom'd deep;  
That shrined in air on viewless wings aspire,  
Or blazing bathe in elemental fire. 300  
As with nice touch her plaistic hand she moves,  
Rise the fine forms of Beauties, Graces, Loves;  
Kneel to the fair Inchantress, smile or sigh,  
And fade or flourish, as she turns her eye.

Fair CISTA, rival of the rosy dawn, 305  
Call'd her light choir, and trod the dewy lawn;  
Hail'd with rude melody the new-born May,  
As cradled yet in April's lap she lay.

*So with her waving pencil.* l. 295. Alluding to the many beautiful paintings by Miss EMMA CREWE; to whom the author is indebted for the very elegant Frontispiece, where Flora, at play with Cupid, is loading him with garden-tools.

*Cistus labdaniferus.* l. 304. Many males, one female. The petals of this beautiful and fragrant shrub, as well as of the *Enothera*, tree primrose, and others, continue expanded but a few hours, falling off about noon, or soon after, in hot weather. The

( 80 )

I.

“Born in yon blaze of orient sky,  
“Sweet MAY! thy radiant form unfold; 310  
“Unclose thy blue voluptuous eye,  
“And wave thy shadowy locks of gold.

II.

“For Thee the fragrant zephyrs blow,  
“For Thee descends the sunny shower;  
“The rills in softer murmurs flow, 315  
“And brighter blossoms gem the bower.

most beautiful flowers of the *Cactus grandiflorus* (see *Cereia*) are of equally short duration, but have their existence in the night. And the flowers of the *Hibiscus trionum* are said to continue but a single hour. The courtship between the males and females in these flowers might be easily watched; the males are said to approach and recede from the females alternately. The flowers of the *Hibiscus sinensis*, mutable rose, live in the West Indies, their native climate, but one day; but have this remarkable property, they are white at the first expansion, then change to deep red, and become purple as they decay.

The gum or resin of this fragrant vegetable is collected from extensive underwoods of it in the East by a singular contrivance. Long leathern thongs are tied to poles and cords, and drawn over the tops of these shrubs about noon; which thus collect the dust of the anthers, which adheres to the leather, and is occasionally scraped off. Thus in some degree is the manner imitated, in which the bee collects on his thighs and legs the same material for the construction of his combs.

( 81 )

III.

“Light Graces dress’d in flowery wreaths  
“And tiptoe Joys their hands combine;  
“And Love his sweet contagion breathes,  
“And laughing dances round thy shrine. 320

IV.

“Warm with new life the glittering throngs  
“On quivering fin and rustling wing  
“Delighted join their votive songs,  
“And hail thee, GODDESS OF THE SPRING.”

O’er the green brinks of Severn’s<sup>91</sup> oozy bed, 325  
In changeful rings, her sprightly troop She led;  
PAN<sup>92</sup> tripp’d before, where Eudness<sup>93</sup> shades the mead,  
And blew with glowing lip his sevenfold reed;  
Emerging Naiads<sup>94</sup> swell’d the jocund strain,  
And aped with mimic step the dancing train.— 330

*Sevenfold reed*. l. 328. The sevenfold reed, with which Pan is frequently described, seems to indicate, that he was the inventor of the musical gamut.<sup>95</sup>

( 82 )

“I faint, I fall!”—*at noon* the Beauty cried,  
“Weep o’er my tomb, ye Nymphs!”—and sunk and died.  
—Thus, when white Winter o’er the shivering clime  
Drives the still snow, or showers the silver rime;  
As the lone shepherd o’er the dazzling rocks                    335  
Prints his steep step, and guides his vagrant flocks;  
Views the green holly veil’d in network nice,  
Her vermil<sup>96</sup> clusters twinkling in the ice;  
Admires the lucid vales, and slumbering floods,  
Fantastic<sup>97</sup> cataracts, and crystal woods,                    340  
Transparent towns, with seas of milk between,  
And eyes with transport the refulgent scene:—  
If breaks the sunshine o’er the spangled trees,  
Or flits on tepid wing the western breeze,  
In liquid dews descends the transient glare,                    345  
And all the glittering pageant melts in air.

Where Andes<sup>98</sup> hides his cloud-wreath’d crest in snow,  
And roots his base on burning sands below;



( 83 )

CINCHONA, fairest of Peruvian maids,  
To Health's bright Goddess in the breezy glades                    350  
On Quito's<sup>99</sup> temperate plain an altar rear'd,  
Trill'd the loud hymn, the solemn prayer preferr'd:  
Each balmy bud she cull'd, and honey'd flower,  
And hung with fragrant wreathes the sacred bower;  
Each pearly sea she search'd, and sparkling mine,                    355  
And piled their treasures on the gorgeous shrine;  
Her suppliant voice for sickening Loxa<sup>100</sup> raised,  
Sweet breath'd the gale, and bright the censor blazed.  
—“Divine HYGEIA!<sup>101</sup> on thy votaries bend  
“Thy angel-looks, oh, hear us, and defend!                    360  
“While streaming o'er the night with baleful glare  
“The star of Autumn<sup>102</sup> rays his misty hair;  
“Fierce from his fens the Giant AGUE<sup>103</sup> springs,  
“And wrapp'd in fogs descends on vampire wings;

*Cinchona*. l. 349. Peruvian bark-tree. Five males, and one female. Several of these trees were felled for other purposes into a lake, when an epidemic fever of a very mortal kind prevailed at Loxa in Peru, and the woodmen, accidentally drinking the water, were cured; and thus was discovered the virtues of this famous drug.

( 84 )

“Before, with shuddering limbs cold Tremor reels,           365  
“And Fever’s burning nostril dogs his heels;  
“Loud claps the grinning Fiend his iron hands,  
“Stamps with his marble feet,<sup>104</sup> and shouts along the lands;  
“Withers the damask cheek, unnerves the strong,  
“And drives with scorpion-lash the shrieking throng.       370  
“Oh, Goddess! on thy kneeling votaries bend  
“Thy angel-looks, oh hear us, and defend!”  
—HYGEIA, leaning from the blest abodes,  
The crystal mansions of the immortal gods,  
Saw the sad Nymph uplift her dewy eyes,                   375  
Spread her white arms, and breathe her fervid sighs;  
Call’d to her fair associates, Youth, and Joy,  
And shot all-radiant through the glittering sky;  
Loose waved behind her golden train of hair,  
Her sapphire mantle swam diffus’d in air.—               380  
O’er the grey matted moss, and pansied sod,  
With step sublime the glowing Goddess trod,  
Gilt with her beamy eye the conscious shade,  
And with her smile celestial bless’d the maid.

( 85 )

“Come to my arms,” with seraph voice she cries, 385  
“Thy vows are heard, benignant Nymph! arise;  
“Where yon aspiring trunks fantastic wreath  
“Their mingled roots, and drink the rill beneath,  
“Yield to the biting axe thy sacred wood,  
“And strew the bitter foliage on the flood.” 390  
In silent homage bow’d the blushing maid,—  
*Five* youths athletic hasten to her aid,  
O’er the scar’d hills re-echoing strokes resound,  
And headlong forests thunder on the ground.  
Round the dark roots, rent bark, and shatter’d boughs, 395  
From ocherous<sup>105</sup> beds the swelling fountain flows;  
With streams austere its winding margin laves,  
And pours from vale to vale its dusky waves.  
—As the pale squadrons, bending o’er the brink,  
View with a sigh their alter’d forms, and drink; 400  
Slow-ebbing life with refluent crimson breaks  
O’er their wan lips, and paints their haggard cheeks;  
Through each fine nerve rekindling transports dart,  
Light the quick eye, and swell the exulting heart.

( 86 )

—Thus ISRAEL's heaven-taught chief<sup>106</sup> o'er trackless sands  
Led to the sultry rock his murmuring bands. 406  
[B]right<sup>107</sup> o'er his brows the forky radiance blazed,  
And high in the air the rod divine He raised.—  
Wide yawns the cliff!—amid the thirsty throng  
Rush the redundant waves, and shine along; 410  
With gourds and shells and helmets press the bands,  
Ope their parch'd lips, and spread their eager hands,  
Snatch their pale infants to the exuberant shower,  
Kneel on the shatter'd rock, and bless the Almighty Power.

Bolster'd with down, amid a thousand wants, 415  
Pale Dropsy<sup>108</sup> rears his bloated form, and pants;  
“Quench me, ye cool pellucid rills!” he cries,  
Wets his parch'd tongue, and rolls his hollow eyes.  
So bends tormented TANTALUS<sup>109</sup> to drink,  
While from his lips the refluent waters shrink; 420  
Again the rising stream his bosom laves,  
And Thirst consumes him 'mid circumfluent waves.



( 88 )

So when Contagion with mephitic<sup>114</sup> breath  
And wither'd Famine urged the work of death;  
Marseilles' good Bishop, London's generous Mayor, 435  
With food and faith, with medicine and with prayer,  
Raised the weak head and stayed the parting sigh,  
Or with new life relumed the swimming eye.—  
—And now, PHILANTHROPY!<sup>115</sup> thy rays divine  
Dart round the globe from Zembla to the Line;<sup>116</sup> 440  
O'er each dark prison plays the cheering light,  
Like northern lustres o'er the vault of night.—

*Marseille's good Bishop.* l. 435. In the year 1720 and 1722 the Plague made dreadful havock at Marseilles; at which time the Bishop<sup>117</sup> was indefatigable in the execution of his pastoral office, visiting, relieving, encouraging, and absolving the sick with extream tenderness; and though perpetually exposed to the infection, like Sir John Lawrence mentioned below, they both are said to have escaped the disease.

*London's generous Mayor.* l. 435. During the great Plague at London in the year 1665, Sir John Lawrence,<sup>118</sup> the then Lord Mayor, continued the whole time in the city; heard complaints, and redressed them; enforced the wisest regulations then known, and saw them executed. The day after the disease was known with certainty to be the Plague, above 40,000 servants were dismissed, and turned into the streets to perish, for no one would receive them into their houses; and the villages near London drove them away with pitch-forks and fire-arms. Sir John Lawrence supported them all, as well as the needy who were sick, at first by expending his own fortune, till subscriptions could be solicited and received from all parts of the nation. *Journal of the Plague-year. Printed for E. Nutt, &c. at the R. Exchange. 1722.*<sup>119</sup>

( 89 )

From realm to realm, with cross or crescent crown'd,  
Where'er Mankind and Misery are found,  
O'er burning sands, deep waves, or wilds of snow, 445  
Thy HOWARD<sup>120</sup> journeying seeks the house of woe.  
Down many a winding step to dungeons dank,  
Where anguish wails aloud, and fetters clank;  
To caves bestrew'd with many a mouldering bone,  
And cells, whose echoes only learn to groan; 450  
Where no kind bars a whispering friend disclose,  
No sunbeam enters, and no zephyr blows,  
HE treads, inemulous of fame or wealth,  
Profuse of toil, and prodigal of health;  
With soft assuasive eloquence expands 455  
Power's rigid heart, and opes his clenching hands;  
Leads stern-ey'd Justice to the dark domains,  
If not to sever, to relax the chains;  
Or guides awaken'd Mercy through the gloom,  
And shews the prison, sister to the tomb!— 460  
Gives to her babes the self-devoted wife,  
To her fond husband liberty and life!—

( 90 )

—The Spirits of the Good, who bend from high  
Wide o'er these earthly scenes their partial eye,  
When first, array'd in VIRTUE's purest robe, 465  
They saw her HOWARD traversing the globe;  
Saw round his brows her sun-like Glory blaze  
In arrowy circles of unwearied rays;  
Mistook a Mortal for an Angel-Guest,  
And ask'd what Seraph-foot the earth imprest. 470  
—Onward he moves!—Disease and Death retire,  
And murmuring Demons hate him, and admire.”

Here paused the Goddess,—on HYGEIA's<sup>121</sup> shrine  
Obsequious Gnomes<sup>122</sup> repose the lyre divine;  
Descending Sylphs<sup>123</sup> relax the trembling strings, 475  
And catch the rain-drops on their shadowy wings.  
—And now her vase a modest Naiad<sup>124</sup> fills  
With liquid crystal from her pebbly rills;  
Piles the dry cedar round her silver urn,  
(Bright climbs the blaze, the crackling faggots burn), 480



Culls the green herb of China's envy'd bowers,  
In gaudy cups the steamy treasure pours;  
And, sweetly-smiling, on her bended knee  
Presents the fragrant quintessence of Tea.

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<sup>1</sup> A female votary or devotee.

<sup>2</sup> 1789: "red"

<sup>3</sup> Goddess of the rainbow, also a messenger of the gods, in Greco-Roman mythology.

<sup>4</sup> A piece of cork with a circle of feathers, hit with rackets in the children's game of battledore and shuttlecock, or, after ED's time, in the game of badminton.

<sup>5</sup> Germinate.

<sup>6</sup> In the style of Dædalus in Greek mythology, whose name means "cunning worker." Among his inventions, he is famed for the intricate labyrinth he made for King Minos of Crete. When Minos would not let him go, he constructed wings out of wax and feathers for himself and his son Icarus. The wings worked and they were able to fly away, but Icarus flew too near the sun, which melted the wax, so that he fell into the sea and drowned.

<sup>7</sup> Pennons are long, narrow flags, usually on the head of a lance or helmet to act as a military ensign; in poetic usage, they are wings.

<sup>8</sup> In 1783, French brothers Etienne Jacques Montgolfier (1745–1799) and Joseph Michel Montgolfier (1740–1810) launched the first hot-air balloon carrying human passengers. Their experiments began in 1782 with balloons that were either unfreighted or carried animals. ED successfully tried his hand at flying a hydrogen balloon in December 1783, to celebrate the foundation of the Derby Philosophical Society (King-Hele, *Life*, p. 197).

<sup>9</sup> A mass of quickly moving clouds.

<sup>10</sup> 1799: "To every shrine they breathe their mingled vows."

<sup>11</sup> Venus and Mercury both are visible before sunrise and have phases like the moon. ED likely means Venus, as Mercury is more difficult to see.

<sup>12</sup> Jupiter's moons.

<sup>13</sup> 1791, 1794, 1799: "crystal"

<sup>14</sup> Uranus was discovered by musician and self-taught astronomer William Herschel (1738–1822) in 1781, who named it the Georgian star (Georgium Sidus), after King George III.

<sup>15</sup> 1789: "burning"

<sup>16</sup> The constellation Cassiopeia. Queen Cassiopeia, in classical mythology, boasted that she and her daughter Andromeda were more beautiful than the Nereids (sea-nymphs), which angered Poseidon. Part of Cassiopeia's punishment was to be chained in a chair in the heavens; the main stars in the constellation outline this image.

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- <sup>17</sup> Ursa Major, or the Great Bear, the seven main stars of which are recognizable as the Plough, or Big Dipper.
- <sup>18</sup> Argo Navis, a constellation representing the ship of the Argonauts in Greek mythology.
- <sup>19</sup> The threads that cross from side to side in a piece of weaving. By association, “woof” can also signify a woven fabric, or (rarely) the action of weaving.
- <sup>20</sup> A tool used in weaving to pass the thread of the woof between the vertical threads of the warp.
- <sup>21</sup> I. stands for *liber*; ED’s reference is to Book 1:34–5 of Virgil’s *Georgics*: “for thee even now the blazing Scorpion draws in his arms,” referring to the constellation Scorpio (Trans. H. Rushton Fairclough, Loeb Classical Library).
- <sup>22</sup> William Herschel (1738–1822), “On the Construction of the Heavens,” *Philosophical Transactions of the Royal Society of London* Vol. 75 (1785): pp. 213–66.
- <sup>23</sup> In 1789, this note does not include the reference to the new star; it consists only of the reference to *Georgics*.
- <sup>24</sup> 1791, 1794, 1799: “Portugal”
- <sup>25</sup> Egyptian goddess, wife and sister of Osiris, and mother of Horus, associated with fertility, death and rebirth. Roman author Pliny the Elder (23–79 CE), in Book 7, 56.195 of *Naturalis Historia* [Natural History], credits the invention of weaving to the Egyptians.
- <sup>26</sup> Arachne, in Greek mythology, challenged Athena to a weaving contest. Arachne’s piece of weaving depicted the loves of the gods; Athena tore it up. Arachne in despair hanged herself, but Athena turned the rope into a web and Arachne into a spider. Roman author Pliny the Elder (23–79 CE), in Book 7, 56.196 of *Naturalis Historia* [Natural History], says that Arachne was the inventor of linen and nets.
- <sup>27</sup> A synonym for woof.
- <sup>28</sup> Reeds are used to beat the latest woven thread against the already woven fabric.
- <sup>29</sup> The pedals move the shafts that lift selected threads of the warp for the woof thread to be woven between them.
- <sup>30</sup> The warp threads are attached to a horizontal beam at the top of the loom.
- <sup>31</sup> The weights are used to tension the warp threads.
- <sup>32</sup> Dampening the flax aids spinning.
- <sup>33</sup> Spinning draws out fibers from a loose mass and twists them together.
- <sup>34</sup> “beating” in all other editions.
- <sup>35</sup> In hand-spinning with a spindle, twirling the spindle twists the fibers attached to it, and the resulting thread or yarn is then wound around the spindle. With a spinning wheel, pedals put a wheel in motion which turns a drive band that rotates the flyer (the part that spins the yarn) and the bobbin (on to which the spun yarn is wound).
- <sup>36</sup> A personification of the river Derwent powering the cotton mill, but also a reference to Poseidon, Greek god of the sea, usually depicted with a trident, a three-pronged spear. ED adds in a further classical myth here (which he retells in *LOTP* IV:285–98): as punishment for a crime, Zeus sold Heracles as a slave to Omphale, queen of Lydia, who

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dressed him as a woman and made him do the domestic work of spinning while she took on his lion's skin and club.

<sup>37</sup> Nymphs of fresh water such as rivers or springs; here, also the women workers mentioned in ED's note.

<sup>38</sup> Richard Arkwright (1732–1792), tradesman who went from barber and wig-maker to inventor and industrialist. Arkwright had two mills in Cromford, near Matlock: the first was working by 1774, and the second built in 1776–1777. In 1783 he built Masson Mill at Matlock Bath: this is the one ED refers to since it was directly on (and powered by) the Derwent (See R. S. Fitton, *The Arkwrights: Spinners of Fortune* (1989), pp. 81–2). In 1785, ED showed concern about the legal proceedings over Arkwright's patent and tried to persuade his fellow Lunar Society members Matthew Boulton (1728–1809) and James Watt (1736–1819) to support Arkwright, drawing attention to their own vested interest in protecting patents and in steam power (ED suggested engines could be provided for the mills). ED and Watt testified on Arkwright's behalf at a trial in February 1785 which found in favor of Arkwright, but in a later trial in June of the same year, in which they both again testified, the decision was reversed (see King-Hele, *Life*, pp. 205–06). Despite losing the patent, Arkwright's business remained the largest of England's cotton spinners. ED was called in to attend Arkwright in his last illness (see Fitton pp. 216–17). According to King-Hele, ED was the author of Arkwright's obituary in the *Derby Mercury* which emphasized the human benefits of his invention and his factory system's creation of work and housing (see *Life* p. 274).

<sup>39</sup> Of the nature of the fundamental tissue of plants, as in the pulp of fruits, the softer parts of leaves, or the pith of stems.

<sup>40</sup> Stylus.

<sup>41</sup> In 1789, these lines (II:119–20) read, “—*Three* favour'd youths with fond officious care / Learn the strange process, and assist the fair;” and the following two lines (II:121–22 here) do not appear.

<sup>42</sup> Numbers.

<sup>43</sup> Crotchet: in musical notation, a symbol for a quarter note. Here, ED seems to use the word to suggest either symbols for musical notes generally (there are seven if counted from whole note or semibreve to sixty-fourth note or hemidemisemiquaver), or perhaps the seven notes of the octave.

<sup>44</sup> ED's source was likely *Histoire de Charles XII* (1731) by Voltaire (1694–1778); the relevant passage is included in *The Works of Mr. de Voltaire. Translated from the French. With notes historical and critical* (1761–1769) translated by author Tobias Smollett (1721–1771) and writer and clergyman Thomas Francklin (1721–1784): “Some people would make us believe that Charles was a good mathematician. [...] He wanted to alter the method of counting by tens, and to substitute in its place the number sixty-four, because that number contains both a square and a cube, and being divided by two is reducible to an unit. This, if it proves any thing, only shews that he always delighted in what was difficult and extraordinary” (Vol. 11, p. 117). Charles XII of Sweden (1682–1718) collaborated on mathematical innovation with Emmanuel Swedenborg (1688–1772), scientific and mystical writer. The king charged Swedenborg with creating a numeration system, on a geometrical premise of numbers as squares and cubes, with base 64. Swedenborg developed a simpler octal (base 8) system, which he

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proposed in his 1718 work, *En ny räkenskap* (“A new system of reckoning”). To avoid confusion, he did not want to use the same Arabic numbers normally used for base 10 and so chose letters of the alphabet to correspond to the numbers instead. (See David Dunér, *The Natural Philosophy of Emanuel Swedenborg*, trans. Alan Crozier (2013), pp. 77–99.)

<sup>45</sup> Phonetic term for the sounds of the letters l, m, n, and r.

<sup>46</sup> Phonetic term meaning uttered without vibration of the vocal cords.

<sup>47</sup> Flying; passing rapidly through the air; figuratively, of discourse, moving rapidly.

<sup>48</sup> In musical notation, a symbol for an eighth note.

<sup>49</sup> Alchemic or magical, by association with Hermes Trismegistus, the legendary author of the Hermetic corpus of mystical and philosophical writings from the first to the third century CE.

<sup>50</sup> 1789: “From Earth’s deep chambers tore her golden stores,”

<sup>51</sup> Impregnated with iron.

<sup>52</sup> Mary Delany (1700–1788), formerly Pendarves, née Granville, though without fortune herself, was well connected in court, society, and the intellectual world, corresponding with figures such as composer George Frideric Handel (1685–1759), philosopher Jean-Jacques Rousseau (1712–1778), and writers Jonathan Swift (1667–1745) and Frances Burney (1752–1840). She also received a house and a pension from George III. Her uniquely observant letters have been drawn upon by historians as documentation of eighteenth-century life and material culture. She was adept in several crafts including embroidery, shellwork, painting, and silhouettes. From 1768 until 1785, Delany lived much of the year at Bulstrode in Buckinghamshire, the home of her friend Margaret Cavendish Bentinck (1715–1785), duchess of Portland and owner of the Portland Vase (which figures prominently in *The Economy of Vegetation* (II:320, Additional Note XXII—Portland Vase, and accompanying illustrations by William Blake (1757–1827)). Together they enjoyed crafting and natural history pursuits. It was there, in 1772, that Delany began making the paper mosaics of flowers and plants which are her major work, produced over the course of a decade and collectively called the “Flora Delanica”. They are collages of coloured paper with watercolour and bodycolour (opaque watercolour) and sometimes include plant material. Many are now held in the British Museum Prints and Drawings department. (See Alicia Weisberg-Roberts, “Introduction (1): Mrs. Delany from Source to Subject” in *Mrs. Delany and Her Circle*, ed. Mark Laird and Alicia Weisberg-Roberts (2009), pp. 1–19.)

<sup>53</sup> Anna Seward (1742–1809), in *Memoirs of the Life of Dr. Darwin* (1804), criticized these lines on Delany for “describing a totally different art from hers, even that of a mere artificial flower-maker.” Seward calls this “one of the most censurable passages in the whole poem,” and clarifies that Delany “used neither the wax, moss, or wire attributed to her in this entirely false description of her art,” and “had no assistant.” Seward “remonstrated with” ED but “he said, the description in the note was accurate” (pp. 315–16). See Appendix 4.1.

<sup>54</sup> “Hortus siccus,” Latin for “dry garden,” was Delany’s name for her paper garden, though it normally refers to a herbarium (a collection of dried plants).

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<sup>55</sup> Henrietta Maria North, née Bannister (d. 1796) married Brownlow North (1741–1820) in 1771. He became Bishop of Winchester in 1774 and moved into Farnham Castle where the couple made many improvements to the building and grounds. According to Stebbing Shaw's *A Tour to the West of England, in 1788* (1789), "botany is the principal delight of the family" and "the neat little flower garden of Mrs. North, exceeds every thing of the kind I have ever seen," but he does not mention her paper-garden. According to Henry Charles Andrews, *The Botanist's Repository* (1797–1814), *Moræa Northiana* (North's False Flag or Walking Iris) is named after her, as she introduced it to England; he also comments that to her "liberality in botanical pursuits we owe much of the present prevailing taste for the science" (Vol. 4, Plate 255).

<sup>56</sup> Linnaeus's list of flowers for his *Horologium Floræ* is found in *Philosophia Botanica* (1751), XI, Adumbrationes, section 335 (pp. 274–76).

<sup>57</sup> Time measured with reference to the apparent passage of the stars across the sky.

<sup>58</sup> Movement of a plant stem or root caused by variation in the rate of growth on different sides.

<sup>59</sup> 1799: "He divides them into"

<sup>60</sup> The botanical garden of the University of Uppsala was founded in 1655 and greatly developed by Linnaeus.

<sup>61</sup> Benjamin Stillingfleet (1702–1771), botanist and writer. His *Miscellaneous Tracts* (1759) includes translations of selected dissertations from the *Amœnitates Academicæ* [Academic Delights] (1749–1790), a series 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. In the second edition of *Miscellaneous Tracts* (1762), the *Calendar of Flora* is added (pp. 229–337), in which Stillingfleet presents his own observations of English flowers and birds in 1755 alongside observations in Sweden from the same year that were published in *Amœnitates Academicæ* in a dissertation proposed by A. M. Berger ("Calendarium Floræ", no. LXVII, Vol. 4 (1756), pp. 387–414). Stillingfleet extracts the English native plants from those listed and finds their English names. (He also adds "A Siberian or Lapland Year" and a "Calendar of Flora, by Theophrastus, at Athens.")

<sup>62</sup> A wound-up mainspring, as it unwinds, provides the power of movement to a mechanical watch or clock. It is housed in a barrel.

<sup>63</sup> A gear train, or series of toothed wheels, transmits the power from the mainspring to the escapement. The escapement allows the gears to advance one tooth at a time.

<sup>64</sup> The drilling of jewels (such as diamonds, but particularly rubies) in which to set the axles of the wheels in watches and clocks for reduced friction and wear was pioneered by mathematician and natural philosopher Nicolas Fatio of Duillier (1664–1753). One of the watches he designed was tested by Isaac Newton (1642–1727) in 1704, and examples were exhibited at the Royal Society in 1705.

<sup>65</sup> The balance wheel connected to the escapement, is the part of a clock or watch that keeps time by oscillating back and forth at a steady rhythm; a balance spring helps to regulate its oscillation by bringing it back toward the center. The movement of the escapement provides

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momentum to keep it going. The balance wheel drives the gears of the dial train, which in turn move the hands of the watch or clock.

<sup>66</sup> In relief, or standing out from the surface.

<sup>67</sup> To paint or decorate with a tapered fine hair paintbrush.

<sup>68</sup> Temples.

<sup>69</sup> Not yet feathered.

<sup>70</sup> Nebuchadnezzar II (ca. 630–562 BCE) was king of Babylon from 605–562 BCE. He built the city's fortification walls and Hanging Gardens. In the biblical book of Daniel, Nebuchadnezzar, after a prophetic dream, "was driven from men, and did eat grass as oxen, and his body was wet with the dew of heaven, till his hairs were grown like eagles' feathers, and his nails like birds' claws." The prophet Daniel, and a voice from heaven, had predicted that this would happen, and that "seven times" would "pass over" Nebuchadnezzar in this beastly condition until he learned "that the most High ruleth in the kingdom of men, and giveth it to whomsoever he will" (Daniel 4:24–37).

<sup>71</sup> 1791, 1794, 1799: "The mighty Monarch of Assyria hurl'd, / Sojourn'd with brutes beneath the midnight storm, / Changed by avenging Heaven in mind and form."

<sup>72</sup> The river Euphrates flows from Turkey through Syria and Iraq, where it joins the Tigris, and flows into the Persian Gulf.

<sup>73</sup> Tawny with streaks of a different color.

<sup>74</sup> A river of northern India, sacred to Hindus. It flows from the Himalayas into the Bay of Bengal.

<sup>75</sup> St. Anthony of Padua (1188/95–1231) was a Franciscan friar, known for eloquence and working miracles.

<sup>76</sup> Joseph Addison (1672–1719), writer and politician best known for his essays in *The Tatler* and *The Spectator*, published his *Remarks on Several Parts of Italy, &c. In the Years 1701, 1702, 1703* in 1705. In the chapter on Brescia, Verona, and Padua, he reports that "They sell at Padua the Life of St. Anthony" of which "the most remarkable Part" is "his Discourse to an Assembly of Fish"; he transcribes the episode, including the full sermon, in Italian and translates it into English (pp. 62–74).

<sup>77</sup> This line number is accidentally placed on line 251, but the subsequent numbering is not affected.

<sup>78</sup> Seals; members of the genus *Phoca*.

<sup>79</sup> As well as the real species of plants of genus *Asphodelus*, *asphodel* signifies an immortal flower, associated with either the Elysian fields or the underworld in Greek mythology. In Homer's *Odyssey*, the dead exist as phantoms in the mead of *asphodel* in the underworld (24:14).

<sup>80</sup> As well as the real species of plants of genus *Amaranthus*, *amaranth* signifies a mythic flower that never fades.

<sup>81</sup> Baron François de Tott (1733–1793) was a military advisor and mathematics teacher to the navy of the Ottoman Empire in the 1770s. His *Mémoires sur les Turcs et les Tartares* (1784) was translated in 1785 as *Memoirs of Baron de Tott*. It emphasizes the corruption and despotism of the Ottomans. Darwin may be referring to a passage describing the "lovers" of opium: "their pale and melancholy Figures would be sufficient to raise our pity, did not their lengthened Necks, their Heads turned on one side, their Back Bone distorted, their Shoulder raised up to their Ear, and a number of other extravagant

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attitudes which result from their Disease, exhibit a Picture of the most ridiculous Nature" (Vol. 1, pp. 141–42).

<sup>82</sup> 1789: "Bend the stiff knee, and lift the unmoving eye."

<sup>83</sup> 1789: "Fill'd"

<sup>84</sup> These lines (II:281–2, from "With deeper" to "pant beneath;") do not appear in 1789.

<sup>85</sup> 1789: "brighter"

<sup>86</sup> Like the fine white marble of ancient Greek sculptures from the island of Paros.

<sup>87</sup> In Greek mythology, Hermes is the god of roads and boundaries, the messenger of the gods, and a *psychopompos*, one who conducts the souls of the dead to the underworld (as in Book 24 of the *Odyssey*). He is also associated with sleep and dreams, trickery, commerce, and oratory and interpretation. He is represented with a winged cap and sandals, and his caduceus or herald's staff is entwined with two serpents.

<sup>88</sup> Roman god of the underworld; Hades in Greek mythology.

<sup>89</sup> A pencil or a fine tapered paintbrush as a symbol of artistic skill or style.

<sup>90</sup> Emma Crewe (1780–1850) was an amateur artist. She provided designs to innovative potter and industrialist Josiah Wedgwood (1730–1795), ED's friend and fellow Lunar Society member, to be used for reliefs in jasperware, a fine, dense stoneware that he developed and became famous for (especially in its most popular background color, Wedgwood Blue).

<sup>91</sup> The river Severn begins on Mount Plynlimon in western Wales, flows northeast to Shrewsbury in the west of England, then southeast, and finally southwest where it becomes the Severn Estuary and flows into the Bristol Channel.

<sup>92</sup> Greek god of the woodland, shepherds, and flocks; he is part human, part goat. He invented the musical pipe (thus "pan pipes") which he called "syrinx," after the name of a nymph he loved who was changed into a reed to escape him.

<sup>93</sup> References to Eudness Woods are rare. One is in a list of "Scenes and Situations" of Shropshire in *A Supplement to the Tour through Great Britain* by poet Thomas Gray (1716–1771) with additions "by another hand" (1787), where the woods are said to be four miles north of Bridgenorth (p. 37).

<sup>94</sup> Nymphs of fresh water such as rivers or springs.

<sup>95</sup> The full series of musical notes that are recognized to form part of a scale, or the full range of notes that can be produced.

<sup>96</sup> Vermilion; bright red.

<sup>97</sup> 1794, 1799: "Suspended"

<sup>98</sup> Chain of mountains along the west coast of South America.

<sup>99</sup> City in north central Ecuador, at a high altitude in the Andes mountains.

<sup>100</sup> Loja, a city in what is now southern Ecuador.

<sup>101</sup> Goddess of health in Greek mythology.

<sup>102</sup> Fomalhaut, the brightest star in the constellation Piscis Austrinus, or the Southern Fish. In the northern hemisphere, it is visible in autumn.

<sup>103</sup> A high fever, or a fit of shivering that accompanies a high fever.

<sup>104</sup> 1794, 1799: "Stamps with black hoof,"

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<sup>105</sup> Containing ochre, earthy material or clay rich in iron oxides, of the color yellow, orange-red, or brown.

<sup>106</sup> Moses. This scene is narrated in the biblical books of Exodus and Numbers. While the Jewish people are in the wilderness, having escaped slavery in Egypt, they complain of thirst. Their leader Moses asks the Lord what to do, and the Lord instructs him to take his rod (with which he had previously turned the waters of the Nile to blood, and parted the Red Sea) and go with the elders of Israel where "I will stand before thee there upon the rock in Horeb; and thou shalt smite the rock, and there shall come water out of it, that the people may drink" (Exodus 17:1–7; see also Numbers 20:1–13).

<sup>107</sup> Corrected as indicated in the Errata.

<sup>108</sup> A disease characterized by accumulation of watery fluid in cavities lined with serous membranes, or in connective tissue. Figuratively, dropsy can also signify insatiable thirst.

<sup>109</sup> In Greek mythology, Tantalus was punished by the gods for his various crimes by being set in a pool of water which receded when he tried to drink from it.

<sup>110</sup> Goddess of health in Greek mythology.

<sup>111</sup> Dropsy of the abdomen.

<sup>112</sup> Alcohol and water repeatedly distilled, with 95% or more alcohol by volume.

<sup>113</sup> This Dr. Darwin is ED's eldest son Charles (1758–1778). He wrote the essay, "Experiments Establishing a Criterion between Mucaginous and Purulent Matter," while studying medicine at Edinburgh; it won the first gold medal awarded by the recently established Aesculapian Society of Edinburgh. ED had the essay printed 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).

<sup>114</sup> Foul-smelling, poisonous; especially of a gas or vapor.

<sup>115</sup> 1789: "BENEVOLENCE!"

<sup>116</sup> Zembla is Nova Zembla, or Novaya Zemlya, an archipelago in northwestern Russia, in the Arctic Ocean. The Line is the equator.

<sup>117</sup> Henri François Xavier de Belsunce de Castelmoron (1671–1755) was Bishop of Marseilles at the time. For the actions described by ED, he was known as the "Good Bishop."

<sup>118</sup> Sir John Lawrence (d. 1692) was Lord Mayor of London in 1664–1665.

<sup>119</sup> 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*." The Lord Mayor and his activities figure through much of the narrative. E. Nutt is printer and bookseller Elizabeth Nutt (b. in or before 1666, d. 1746).

<sup>120</sup> Philanthropist John Howard (1726?–1790). He became high sheriff of Bedfordshire in 1773 (even though, as a dissenter, he was technically excluded from the office). Injustices at the county gaol spurred him to visit other prisons in Britain and continental Europe; he pursued the study and reform of prisons and hospitals for the rest of his life. He had experienced imprisonment himself when, on a trip to Lisbon in 1755–1756, his ship was captured by a French privateer and he was held in a dungeon at Brest. His prison reform activities included giving evidence to House of Commons committees, and



publishing a report on his extensive investigations, *The State of the Prisons in England and Wales, with Preliminary Observations, and an Account of some Foreign Prisons* (1777). The book outlines abuses, recommends improvements, and describes hundreds of prisons in systematic detail.

<sup>121</sup> Goddess of health in Greek mythology.

<sup>122</sup> An elemental spirit of earth, in the system of the alchemist Paracelsus (1493–1541). See editor's note to *LOTP* I:1.

<sup>123</sup> An elemental spirit of air, in the system of the alchemist Paracelsus (1493–1541). See editor's note to *LOTP* I:1.

<sup>124</sup> Nymphs of fresh water such as rivers or springs.