

1. It may be worth while for some ingenious *Chymist*, to open the body of *Sand*, thereby to discern its several principles, that are most prevalent: And then for some good *Naturalist*, to consider how it becomes so advantagious to *Vegetation*, and especially as to that part which concerns the *prolificue Seed*.

2. It may be also worth while for some ingenious *Husbandmen* or *Gardner*, to make some tryal of Sea-sand, if it will not some way answer expectation in these Eastern parts. For their encouragement,

1. There is *Sand* (not much unlike our *Plymouth* sand) which is taken up in the *Thames* about *Erith*, made use of by Brick-makers, and brought to them by Lighters at reasonable rates.

2. A Brickmaker told me, that by the *sides of his Sand heap* the grass did *better spring* than elsewhere, and turned to a *clover-grass*.

3. In our *Country* we have almost *all kinds of Soyles*, and *Sand agrees* very well with each of them: And therefore the conceit of a diversity of Soyle, and another nature of the ground, may be no discouragement.

4. 'Tis well known, that *Sandwich Carrots and Pease* are well esteemed, and they grow there, where the *Sea-sand* has a little over-blown and mixed with the *Soyle*.

3. If you find this do any good, the *Thames* may be searched where is Ouse about *Blackwall* or a little lower, by removing about a foot of the mudd, to see if there be not some *beds of shelly substance* or *Coralline* under it, as it is in the mouth of *Falmouth*; and if such stuff may be found, it may be cheaper than what is farther fetched, and may do well.

4. But especially *our Country men* who are satisfied in the experience of it, should seriously bethink themselves, If there may not be an *easier* and *cheaper* way of *Conveyance*, for a greater quantity thereof to be brought up into the middle of the *Country*. And that is the next thing we shall speak something to, &c.

I. *HERMETIS ÆGYPTIORUM & CHEMICORUM SAPIENTIA*, ab Hermanni Conringii Animadversionibus vindicata per Olaus Borrichium, Hafniæ, A. 1674 in 4^o.

THE learned Author of this Vindication begins his Book with shewing against his famous Antagonist, that the *Ægyptian Hermes*, as an excellent Man, a great Physitian & Chymist, hath well deserv'd of all Mankind, and consequently is highly injured by *Conringius* his Detractions. In this part the Reader will meet with store

of

of good Learning and Antiquity, and see, among many other particulars, that *Pythagoras*, one of the best and most solid Philosophers and Mathematicians among the Antients, learn'd his Philosophy in *Ægypt*; that the great work of Transmutation is due to this *Hermes*; that from thence the *Ægyptians* acquired that immense wealth, whereby they rais'd such vast structures; that those *Ægyptians* were so skilful in making artificial Gemms, as that in lustre and hardness they vyed with the true natural ones; those ancient Artists being masters of three things in this their work, which by the *Grecians* were called, *ἀεθλωσις, βαφή, σκλησις*; the *first* implying a laxity of pores, sufficiently to imbibe the tincture; the *second*, a strong adhesion and due lustre of the color; the *third*, a hardning again of the body of the gemm, after the ingress of the tincture. Where our Author takes occasion to alledge a passage in *Raymund Lulle* his *Test. ult. ad Regem Angliæ* about a real change of Crystall into a very Adamantin mass; *Vidisti* (saith he) *Rex, mirabilem illam projectionem, quam feci tecum Londini, in camera tua secreta S. Catharinæ, versus partem Castellii, super Crystallum solutum cum aqua argenti vivi, & converti eum in massam unam Adamantis finissimi, & virtuosi, plusquam naturalis, ex quo fecisti columnulas pro tabernaculo Dei.*

He takes also notice of another particular, strictly observed among the old *Ægyptians*, which is, That each of their Physitians applyed himself to the knowledge and cure of one only Disease, whereby he became very sagacious and expert in recovering his Patients of such a malady; which way could not but conduce very much to the improvement of Physick, and the benefit of the people.

Nor does he pass by, that the most celebrated Men of *Greece* travelled into *Ægypt* to acquire acknowledge, and gained so considerable advantage of their travels, as answer'd their expectation.

And whereas *Conringius* tells us of his own thorow-insight in the manifold learning and knowledge of the *Grecians*, and admires the same above that of other Nations, challenging our Author to shew any thing among the *Ægyptians* like that of *Aristotle's* History of Animals, of *Theophrastus* of Plants, of *Euclid* and *Archimedes* in Mathematicks, of *Ptolemy* in *Astronomy*, of *Hippocrates* and *Galen* in Physick: Whereas, I say, *Conringius* does this; our Author scruples not to reply; 1. That, without detracting any thing from the *Grecians*, if we should sit down and acquiesce in what the *Greeks* have deliver'd to us, the knowledge of Nature and the skill of Physick would be very imperfect and lame. 2. That, *Aristotle* hath erred grossly in
many

many particulars in his History of Animals; and that for the greatest part of what is true therein, he was beholden for it to Fishermen, Hunts-men and Fowlers; besides what he had learn'd of *Plato*, instructed by the Ægyptians. 3. That *Theophrastus* hath made no thorough investigation of any Plant, and left a very great number of them untouched, owing also much of what he knew to the Ægyptians. 4. That *Euclid* lived a while in Ægypt, a Country much addicted to Geometry and Arithmetick: And that *Archimedes* found in Ægypt his famous *Cochlea ad exhauriendas aquas*; witness *Diodorus Siculus*. So that our Author judges it reasonable, we should think our selves more obliged to the *first Inventors*, than the *Promoters*, of useful knowledge. And as for *Hippocrates* and *Galen*, he saith, that *Cos*, the Country of the former, was so near Ægypt, that doubtless he thence received great advantage to his Medical knowledge; and that *Democritus*, his Master, who had been long acquainted with Ægypt, had questionless suggested many things to him: That *Galen* also had lived long at *Alexandria*, and was wont to advise the Grecian Candidats of Physick to travel thither for experience. As for *Ptolemy*, that he was no Grecian, but an *Alexandrian*, or a *Pelusiote*, and consequently of Ægypt.

And seeing that *Conringius* inveighs with a virulent style against *Hermes* and *Paracelsus*, our Author inquires the more narrowly into the Morals and Doctrines of *Aristotle*, so much extoll'd by the said *Conringius*, and shews, that the former of these two was much polluted, and the latter very jejune, perfunctory, and erroneous. Where he takes occasion both to shew the many falsities deliver'd by *Aristotle* in his History of Animals, particularly in that of the *Lyon*, *Eagle*, and *Crocodile*, and to rectifie the same, especially in the History of the *Crocodile*; of the Anatomy of which he here gives us an accurate and considerable account.

Again, forasmuch as *Conringius* undervalues Medicines prepared of Minerals, our *Borrichius* enumerates the Diseases, that are not cured but by them, such as the *Lues venerea*, stubborn Hypochondriacal affections, Epilepsies, inveterate Head-aches, latent Abscesses in the Body, old and malign Ulcers, &c. And *Conringius* being positive in asserting, that no force of fire is able to dissolve Gold, our Author mentions a way to perform it with a heat, at first scarce sensible, which he affirms to have been experimented by his late Majesty of *Denmark*, *Frederick III*; who commanded a thin plate of very pure Gold to be ground in a mortar, until it was
reduced

reduced into a darkish powder, which being afterwards put into a Glass-retort, and driven by a strong heat, yielded a very red liquor, which tinged spirit of Wine, and became a good potable Gold. On this occasion he relates, what himself hath performed about Gold, *viz.* that, without the use of any fire, by the sole phlegm of common *acetum*, after a previous slight circumstance, (which yet he names not) out of very fine gold he drew a greenish Tincture, which, if in summer it were left in an open glass, would, upon the exhalation of the liquor, be converted into a greenish salt, which conversion whilst it was doing, the liquor in the glass would stir up and down in a strange manner, shooting corporeal rays downwards, long and very fine, not unlike the rays of the Sun, only that they were whitish, and sending forth green branches upwards: Which spectacle he saith he hath often shew'd to his friends coming to see him; that saline texture lasting long, nor being dissolvable but by violence. To this he joyns his Assertion, grounded upon Experiments, that Corals and Gems yield Salts; which *Conringius* denieth.

Discourfing of the vertues of Præparations made of *Animal* substances, and particularly of the *spirit of Eloud*, he declares, that the volatil spirits of *human* blood are more powerful in the curing of the Epilepsie, than those of the blood of other animals; refuting withal the assertion of *Conringius*, importing, that the Ancients did not employ Human blood but among their Magicks.

Examining the Controversie, Whether the vertues of Purgatives or Vomitives pass into their distilled waters, he recites an Experiment he made upon a Dog with the distilled water of black *Hellebore*, which was, that having given him 12 Spoonfuls of it, he did within 4 hours vomit 4 times, and dinged twice, all very copiously.

Discussing the Question about the *Resuscitation of Plants*, (which he seems inclin'd to maintain,) he alledges, for the countenancing of it, the Regeneration of bodies of other kinds, and amongst them he takes notice of *Mercury*, affirming, that that substance, having been a whole year vexed by various fires, and reduced into water, turbith, and ashes, will, by the attraction of the Salt of Tartar amidst the flames, return to the pristin liquor: And that *Lead*, reverberated into *Minium*, melted into glass, reduced into a ceruss, burnt to a Lytharge, in a word, tormented, torn, or burnt, as you please, will in a trice rise again into genuin Lead, by a bare dextrous application of Lixiviat Salt.

Discourfing of the *Signature of Plants*, concerning which *Conringius*

gins affirms, that not any footstep of it is to be found in all Antiquity ; our Author alledges to this famous Antiquary several passages. out of *Dioscorides*, and *Pliny*, clearly evincing the mistake of his Adversary.

Conringius affirming, that all sorts of Diseases have been cur'd without *Chymical* remedies ; our *Borrichius* maintains, that the *Lues venerea*, a confirm'd Dropsie, and Phthisis, and Cancer, and several other maladies will very hardly be cur'd by meer *Galenical* medicaments.

It being controverted, in what sense the Three Principles of the Chymists are contained in Bodies ; our Author labours to explain it ; relating withal an Experiment of his own, (too long to be inserted here,) in which he affirms to have obtained them all three out of common limpid water.

Concerning the Question, whether there be actually Salt in bodies before combustion or the operation of the Fire ; Dr. *Borrichius* endeavours to defend the *Affirmative* ; and in the end of that Discourse undertakes experimental'y to shew, that, without any combustion at all, Corals, Cockel-shells, Stones, Gems, if they be ground to as fine dust as is possible, will, by a simple, though somewhat long, decoction in common distilled water, yield some true Cubical Salt, to be seen after the liquor is strained, and abstracted to a spissitude. The like he affirms he hath found by Experiment in *Metals*, Gold it self not excepted ; the process whereof (which is by grinding) he describes at large *lib. 2. c. 7* ; expecting the judgment of the Intelligent Reader upon it. After which he intimates, that though he could not obtain any visible Salt out of *Quicksilver*, yet he is perswaded from certain effects, that it holds some. For, when once he had crowded an oblong glass full of thin and well-polisht plates of Steel, and put to them so much highly defecated Mercury, as filled up all the interstices, and being very carefully shut, exposed it for three months to the Summer Sun ; he at length breaking the glass, found, not what he looked for, to wit, an Amalgama of *Mars*, but what he looked not for, which was, that almost all those Steel-plates were seized on by rust, though immersed in the very body of the *Quicksilver* : which to him is an argument, that in it there was somewhat saline but volatil, that excited the Iron to protrude the rust. This saline substance he thinks to be wanting in no Element ; where he noteth, that he hath observ'd it not only in a mans breath, being in winter carefully collected in a glass, and by a gentle heat inspissated ;

ted ; but also in Air, crowded together in a wind-gun, which Air, he saith, when let-out again into a Tin-veffel, turns into water, which, after a simple exhalation, is not without saltness.

What he hath thus proved of Salt, he also labours to prove of Sulphur and Mercury; I mean, their In-existence in all Mixts, whether Vegetable, Animal, or Mineral.

In the Conclusion of the whole, our Author makes it his business to shew, that *Paracelsus* his Manners had been too severely represented; but, whatever they were, that that ought not to rob him of the praise due to his knowledge. Again, that being provoked by a crowd of Enemies, he had indulged too far to that human imperfection, which is inclined to retaliate with recriminations; Yet that he had not been a Magician, in the worse sense; of which Crime the Learned *Naudæus* also had upon good grounds purged him. Moreover, that though his servant *Oporinus*, gain'd by his Masters Adversaries, had virulently inveighed against him; yet may there be gather'd out of that *Oporinus* his Epistle more matter of praise for *Paracelsus*, than (as our Author speaks) all his Enemies together have deserv'd; forasmuch as 'tis there said; *Fuisse in Paracelso mirabilem faciendi medicinam in omni morborum genere promptitudinem & felicitatem: Again, In curandis ulceribus, etiam deploratissimis, miracula eum edidisse, nullâ victus præscriptâ aut observatâ ratione. Item, Laudano suo ita gloriatum fuisse, ut affirmare non dubitavit, ejus solius usu se & mortuis vivos reddere posse; idq; aliquoties, dum ille (Oporinus) apud ipsum fuit, declarasse.*

Mentioning *Paracelsus* his skill in making the grand Elixir, (as they call it) our Author recites a Narration made in his hearing by the Count of *Windischgratz*, the Emperours Ambassador at the Danish Court, concerning a person, that was possessor of that great Arcanum; which because 'tis very curious and more than ordinarily circumstantiated, we shall take the liberty to transfer it hither, in the very words of our Author; *viz. Vivere hodie in aula Cæsaris hominem 28 circiter annorum, ex Augustiniano pridem monacho nunc Chemicum, qui pulvisculo ex rubro purpurascens Metalla quævis in obryzum purgatissimum facile convertit, & plurimis ibidem apud maximos, medioximos, nonnunquam etiam minimos, inclarescit Experimentis: Vel triginta homines Viennæ ostendere, confectum ab ipso, se inspectantibus, nobile illud metallum; atq; inter eos Illustrem Comitem Augustinum Wallensteinium pectus quotidie aureo torque operis illius Chemici insignire: Quin & Illustrem Comitem Breunerum contemplatum esse, Stannum mensarium in Aurum tingentem; alios metallorum alia. Cùmq; vitæ sit paulo dissolutioris, atq; magisterii (quod non dissimulat) ignarus, existimare nonnullos, in monasterio quodam Pragensi, inter moribundi cujusdam Patris capsulas, thesaurum hunc indeptum fuisse: Ipsum autem, cùm ante menses aliquot ex febre periculose decumberet, inquirente in rem Medico, professus, ex indicibus quibusdam se inductum, ut latentem alicubi, quem olim Paracellus seposuerat, lapidem Philosophicum, fodiendo investigaret, quævisse sollicitè & reperisse.*

II. *The Garden of Eden, or an Account of the Culture of Flowers and Fruits now growing in England; with particular Rules, how to advance their Nature and Growth, as well in Seeds and Herbs, as in ordering of Trees and Shrubs: In 2 parts, in 8^o. written by Sir Hugh Platt Kt; newly reprinted.*

This, I think, is the first time, I take notice of a small parcel of a late Writer, only reprinted, and without additions. And this I do with great respects for the pains he took, to promote, sollicite and communicate Experiments and Inventions; to accommodate all occasions of Human Life, for all conditions of men, for Necessaries, and in all extremities; and for Delicacies, Treats and Entertainments, and generally with more than ordinary success. This will appear by a few Touches, which I shall here give upon three of his Books formerly publish'd: 1. *This his Garden.* 2. *His Jewell-house.* 3. *His Closet.*

1. The second part of his *Garden* came forth posthume A. 1660; in the preface of which 'tis said, That the First part had four Impressions in less than six years. This Collection (as himself computes them) is of 200 Experiments in that first part, and of 118 in the second part. Not, that he assumes them all for his own Experiments, nor gives his warrant for them all: But whatever he could obtain from all the famous Gardiners of his time about *London* or elsewhere, by exchanges of his own discoveries, or by purchase, or by frequent visits, or by addresses, he briefly published, constantly naming or indicating the right Author, These he calls his *long, costly and laborious* Collections, not written at adventure, or by an imaginary conceit in a Scholars private study, but wrung out of the Earth by the painful hand of *Experience*, faith he. And this small Manual may do Gardiners more good, than many large and methodical Volumes, which are fitter to furnish the Libraries of Theorists, than to grace our Gardens with the best demonstrations of this practical and operative part of Nature.

We want more such worthy persons, to report the progress of all Tryals and Improvements in these affairs, ever since his Majesties restauration. And now more especially, since the *Inoculating of herbs, flowers and shrubs*, and the *grafting in Roots*, and the *mixing and uniting of Vegetables by the Roots*, and the *twists of the roots and stems, inclosed under one bark or rind*, and many other operations upon *bulbous flowers*, are in advance, upon grounds of well-confirmed Experiments; and since the *Anatome of Vegetables*, which may direct the most curious operations, is so accurately handled (as will shortly further appear,) and withall since we begin to discourse so warmly of *propagating Mulberies and Vines in England*: For the later of which our Author hath given us good assurance and encouragement in his *second part of Gardens*, *Seci. 40.*

Mean while we must acknowledge, that some of our *English* have lately done excellently well for *Gardens and Orchards*. And the first and best Master in *France*, for the manner of *Walling fruit*: The *Sieur le Gendre*, and the *French Gardiner* were elegantly English'd about the year 1660. But yet this was peculiar in our Author, that he excited the adventures of all the expert

expert Gardiners he could hear of, and communicated the best of their results: which was more than any one man could, in so short a time, perform: This can only be done at London, where there are Clubs of expert Gardiners, apt to assay *Novelties* and *Rarities*; and where they may have the fullest intelligence from other parts, and can most effectually disperse all over *England* what is most for common good.

2. His *Jewel-house* came abroad *A. 1653.* containing 149 chapters; perhaps more Experiments and Observations, than Chapters. To which the Printer has added *another* Discourse of Gems, Gums, &c. which some think not worthy to be annexed. Here also he assumeth not all for his own, but often vouches his Author, or Instance. And sometimes he may mistake, or be mis-informed. Neither must it be expected, that I should give a Judgment on those *few instances*, which I shall contract here out of many, which may perhaps be no less considerable.

For *Seamen* he directs, how to preserve fresh water a long time from putrefaction, c. 5. He provides a wholesom, lasting and fresh Victual for the Navy, c. 147. A portable ealie Pump, to drain Fens, standing Pools and Ponds, to cast water on banks out of a River, and to do good service upon any sudden, or a great leak in a ship, c. 146. To keep Oysters good some time, and fresh, c. 88. The like for Lobsters, Crayfishes, Prawns, &c. c. 89. I omit the ways he first taught to preserve Rose-leaves, and other flowers, the Juice of Oranges, Lemons, and other Juices in all particulars, all the year; Artichocks, (the dainties of Princes of old, and lately so in *England*, saith *Muffet*;) all the Winter, c. 1; and all the Lent, See *Closet*, b. 69; and divers other kind of fruit, c. 1. here in his *Jewel-house*. He shews c. 4. how to preserve and keep sweet any fowl or other flesh, for three weeks or a month, in excessive hot weather.

For *Travellers* he offers a light garment, yet sufficient against any rainy weather, c. 149. if later cheats have not disgraced the invention: A drink for travellers *ex tempore*, when they cannot bear the change of beer on the road, c. 25. Other helps to ease Horse or Man in their travels, c. 24. 83. 87.

For *Buildings*, a cheap mortar, c. 92. To make smooth or glittering floors or walls, c. 90, &c. He shew'd great respects for honest *Chymistry*, and was careful in directing Distillations, for Salts, Spirits, Oyls, and shewing various uses of them: But he gives cautions against the cheating Alchymist, c. 99; against some Vintners and Marchands of Wine, c. 73; against frauds in some Brewers, c. 9. For the Curiosity, he shews, How a Dutch Jeweller did cement two of the *Queens* Crystal-cups that were broken, and teaches other cements, c. 50. But we expect better Cements from a more learned and honorable Philosopher. He hath many devices to ease the charge of Artificers; for cheap and long lasting candles, and double lights, cheap fuel, drinks in extream wants, and for delicacy. But above all, he advanced the *Agriculture of England* by Marle, Saline materials, as far as the Seas extend, which encompass these Islands; and by other Soyles, c. 104; chiefly by Lime, and the way of *Densthiring*; whereby the most barren lands, hills and waists may

be converted to bear the richest burthens of corn, hay, and grafs.

3. His *Closet* was publisht in two parts, bound together, *A.* 1651. The *first* part contains Preserves, Candyng, Pastes, Banqueting conceits, Cordial waters, Conserves, Medicins and Salves. The *second* part has more of the same, or the like, as Preserves, Conserves, Candyng, Secrets in distillation, Cookery and Huswifry, Sweet powders, Ointments. Further, our Author, having enlarged noble tables, furnish't necessaries for multitudes of the most indigent, enriched husbandmen, found good employments for younger and sincking families, assisted and encouraged ingenuous Arts and honest Trades, invented many new, and revived unregarded or too much neglected accommodations, and having taught, how the Sea-waters and Sea-sand may be made a fertilising compost, and the very Earth a relieving fuel; he thought it best to Ingratiate with Ladies, to do many of the good offices of charity, to heal the sick, lame, maimed and wounded, who by poverty were unable to discharge Apothecaries bills, Physitians and Chirurgions; and to impart the elegant huswifry for delicacies, treats, and collations. He taught them, how to convert the wholesom plants and blossoms of their gardens and common fields, hills and pastures, and the fruit of bushes, shrubs and hedges, and many of our taller trees, to be found food and rich wines; even to challenge the blood of the grape; and under the favour and with the assistance of the *Sugar-cane*, and sometimes with the help of the Alembick, to carry the general applause, and to triumph in victory. And what had now become of our *Sugar-plantations*, if he had not so happily begun when he did, to shew us the excellencies and infinit uses of Sugar. And as to his *Cookery*, *COLUMELLA*, who spake the most he could against it, yet himself instructs, How to order Wine, and other liquors, pickles, gamons, and other food, for the best; and marmalades, quidenies, and conserves, most agreeable for the Empreifes of those days, when the Bee supplied the want of Sugar-canes. And good Cookery is as ancient, as the reputation of the most famous Physitians, a noble part of their profession. Emperours and Popes had always learned Physitians for Master-cooks. And our Author was follow'd with the Cabinets and Closets of both Illustrious and Learned Persons: The Countess of *Arundel's* Closet, the Countess of *Kent's*, *Sr. Theod. Mayern's*, *Sr. Ken. Digby's*, the Queen-like Cabinet, the accomplish't Cook, the French Cook, and *Rabisha's* Body of Cookery: These two last revised and perfected for the year 1673. And for sure and moderat Cookery, *Muffets* Improvement of Health, reprinted 1665, and, as *Dr. Bennet* thinks, worth all that wrote before him, not excepting *Platina*, *Apicius* and *Alexandrinus*. At this day, *Barbados* and *Jamaica* are the better for *Lignons* skill in Cookery. And, if the Sturgeon of *New England* be the right Sturgeon, and so chosen and order'd, as *Muffet* directs, it may be a service (as of old) for an Imperial Table. And all Commanders and Pursers at Sea are concern'd for good marinal pickles, &c.

Errat. in Numb 112. Pag 256. l. 10 r. other requisits. p. 257. l. 17. r. serve out Apprenticeships.
Errat. in this Numb. 113. Pag. 287. l. 10. r. receive delay. p. 290. l. 24. r. debitt.

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