

and outwardmost being very short, the inwardmost Four Inches long, each of them ending in a Point, some Scales having on their out-sides a gummy Juice. In the middle of these Scales were the first Rudiments of many Seeds, the same not being fully ripe, each of which (see the *Fig. lit. L*) is set about with a great quantity of $\frac{1}{4}$ inch long, yellow fine filken Down, (see the *Fig. lit. M*) having a two Inches long *Stylus* or String, (see the *Fig. lit. N*) and yellowish Membranes enclosing the *Stylus* and *Tomentum*, being feathered at top with Feathers for the same purposes, and like the former.

I cannot find this mentioned by any Author, unless it be that of *Breynius* in his Appendix to his first Century, p. 22. *Frutex Africanus, fruticis terribilis Narbonensium folio capitulis oblongis squammosis*, gathered by *Wilhelmus Ten Rhine*, and sent to him from the *Cape of Good-hope*.

V. *The Extracts of Four Letters from Mr. John Banister to Dr. Lister, communicated by him to the Publisher.*

S I R,

TO do right to the Memory of my Friend Mr. *Banister*, who indeed was a very Learned and Sagacious Naturalist; had lived 14 years at least in *Virginia*, and therefore, having employed much of his Time that way, was most likely to have given us a very good Natural History of that place. I understand after his Death the Government of that place took special care of his Papers to seal them up, and transmit them to my Lord Bishop of *London* here, in

P 2

whose

whose Hands they are, and therefore I doubt not but they will be carefully and speedily publish'd, unless possibly, it may not be thought as proper, being posthumous and incoherent Pieces, to have them printed in your Transactions, which is a saving Register of many good things, which else would be in danger to be lost; besides the advantages of Design, which here will cost the Author nothing, and which is the great Trouble in the Publication of things relating to Natural History; you are best able to conduct and manage such Papers through the Hands of unruly Men, such as the Gravers are, as being excellently well skilled in that Art. However, I think it will be very obliging in you, to offer to my Lord of London your Service in that kind, before my Lord shall have otherwise disposed of them.

In the meantime, to give you a slight touch out of my Papers of what he was doing, I will extract a Line or two out of Three or Four Letters which I received from him.

Virginia, May 5. 1668.

I have sent you what Variety of Land or Fresh-water Snails our Country affords, at least what I have observed in it, of those I did receive about 10 or 12 Species, which I have taken care to Figure.

April 19. 1689.

I have sent you what Muscles our Freshes afford, at least what as yet come within my Observation.

I received Six Species, which I have caused very carefully to be Figured and Graved.

I have also sent a parcel of Drawings rowled up for my Lord of London; they are most of them of Plants com-

mon in our Woods, but possibly may be Strangers to the Gardens of Europe.

The Phalangium Spurium is not that of Zanoni; nor the Dipetalos Brasiliana of Margrave. To the Description I made of it in the Year 1679. I find this Quære, An Gentianella Indica Bontii? We have an other small one of this kind, that runs upon the ground, which I have not yet drawn. The Mercurialis differs little from, if it be not the same with the Mercurialis Zeylanica, &c. Herman. Cat. Leyd. App. Vide Mr. Ray in App. p. 1854.

This is the Catalogue of the rest of the Figures and Names of Plants then sent.

Periclymenum perfoliatum semper virens & florens.
Helleborine Ophioglossii Folio.

Securidaca trifolia flore patulo cæruleo, radice Glycyrrhizæ sapore.

Cacalia foliis rotundioribus ad caulem sessilibus.

Crotolaria Americana hirsuta minor, herbacea, caule ad summum sagittato Herman. Append.

Pseudo-Lathyrus luteus, glaber, & hirsutus, siliquis tumentibus nobis in Catalogo.

Here he makes mention of a Catalogue which he sent in the Year 1679. to the Bishop of London.

Convolvulus monococcus.

Mercurialis Hermaphroditica tricoccus, seu Julifera simul & fructum ferens. Mercurialis Zeilanica tricoccus cum acetabulis. Kupampruja Zeilanensibus, Herman. Cat. Leyd. fortè.

Fungus Holofericeus infernè lamellatus, supernè ab insertione, concharum more striatus, & transversim fasciatus.

Fungus parvus rubellus subtus porosus.

Fungus pulverulentus, cute duplici, coriacea scilicet & membranacea testus.

Muscus rupestris repens clavicularis foliosis, erectis, quadratis.

Pseudophalangium ramosum, majus, erectum.

Blitum Spinosum.

Arifarum Tryphyllon.

Laurus Tulipifera baccis rubellis, cono erecto capsulato inclusis.

Muscipula Regia, seu Lychnis viscosa flore amplo cocineo.

Ricinus lactescens fici foliis, spinulis mordacibus armatus.

Ulmaria major trifolia flore amplo pentapetalo.

Gnaphalium alterum Americanum.

N. 1, 2. (N. B. These Tables I suppose are with the rest of his Papers.)

At the bottom of the Table of Insects are of those sort of Flies that Mouffet calls Musca Lupus. I have observed that these, and some others, as the Tabani, Asili, &c. that have but two Wings, have growing out of their Body, under each Wing, a small flexible Apex or Pointel, with which they poise their Body, and keep it in Æquilibrium, as the Dancer of the Rope does with his Pole; for pull these off, and their Flight is short and unsteady: Nor can they, tho' they have the use of their Wings, guide themselves so, as to keep themselves from the ground, or to avoid striking against, whatever is in their way.

At the Top of the Table, Tab. n. 1. Vespa Ichneumon fusca. 2. Vespa Ichneumon atro-cærulea. 3. The Nympha common to them both. 4. Their Houses which they make of Dirt. 5. The Spiders with which they hatch their

their Young. 6. A spurious Brood of some other Ichneumon sometimes found in their Nests.

Virginia, Aug. 2. 1690.

Amongst a parcel of Plants, Shells, Insects, &c. by me transmitted this year, (to whom I know not; he means, I suppose, Draughts and Figures) be pleased to accept of this short Description of a Land-Snail, whose Figure is that N. 1. 1. The out-side is of an Ash colour, inclining to a Yellow, the in-side White, with a Blush of Red; and in the middle of the Entry on the Inturn of the Shell, grows a small white Tooth, or Protuberance. But what is most remarkable, the Shell its self is transparent; and you may plainly perceive by the Opacity there, that the Body of the Animal lies near the Spiral String or Center, on which the Arch is turned, and that the Empty part of the Shell is spread with a thin spotted Film. Near the Tooth, but more inward, is to be seen a little waterish Speck, which by a kind of Systole and Diastole contracts and dilates its self; from this proceeds a lymphid Trunk, which runs into the Film, and there divides into Branches: These grow lesser, and spread as the Animal recedes or approaches the Mouth; and when it is out, extend themselves to the very Lip of the Shell. I suppose the same to be in all, at least the Land-kind, tho' not easily to be discerned. It is likely also, that the Film, the Nautilus or Carvil (as the Sailors call it) exerts, may be analogous to this.

This Description of the Heart of a Snail agrees well with the Anatomy thereof, made, and long since published by *Harder*; also with that other Anatomy of the same Animals, by *Franciscus Redi*.

Virginia, May 12. 1692.

I have sent you another parcel of Fresh-water and Land Snails, in which I believe some are new. [And so there was divers Species, all which I have carefully caused to be graved.] There is a small one of the Land-kind, with a dented Aperture, that I formerly sent; Time had worn that Shell smooth and white; but I lately found it with an outward Coat, on which it is hirsute, or rather finely echinated. I am apt to believe that these, nor hardly any else are dented, till they are at their full growth; for you will find several small ones amongst these with an open entrance, that seem to belong to this kind.

I hitherto observed very little Variety of Naked Snails; I know of but one kind, which is a small Ash-coloured and spotted one, and milkey like yours, Tit. XVI. but some of these I would have sent, but, &c.

I send you the Originals, that you may see I have done fairly by my Friend in the Extracts; which I desire you to keep among the Society's Papers.

April, 18. 93.

Tours, &c.

VI. An Account of digging and preparing the Lapis Calaminaris, in a Letter from Mr. Giles Pooley to Sir Robert Southwel President of the R. S.

S I R,

I Promis'd a long while ago to give you an Account of the *Lapis Calaminaris* which is digged and prepared here near me; that I have not, as I intended long before

of this Fort compass in almost as much ground as the Tower of *London* here there has been, and still is, more *Roman* Coins round than in any place in *England*.

3. *Dubris* or *Dover*, where he believes the Church to have risen out of the old *Roman* Fortrefs, and the square Tower in the middle fitted with Holes for Speculation, to have been the very *Roman Specula* or Watch-Tower, and the *Devil's Drop* the Remains of the *Roman Pharos*.

4. *Folkstone*, a place famous for *Roman* Antiquities, which he suspects the same with the *Lapis Tituli* of *Ninius*, taking the Word *Stonar*, where *Lambert* places *Lapis Tituli* to be a Corruption of (and formerly written) *Estanore* and *Estanores*, signifying the Eastern Border or Coast.

5. *Lim* or *Limbill*, where *Stutfall-Castle*, with a large Circuit of 10 Acres, was of old enclosed with a *Roman* Wall, ruined not so much by Time, as a Seifure of its Materials for the building of *Lim-Church* and the Archdeacons castellated Mansion. The Name *Stutfall* he derives from *Stod fold*, there being formerly kept and stabled a Stud of Mares. This place is also called *Shipwey*.

6. The last *Kentish* Fort is *Anderida* or *Anderidos*, as to the Situation whereof he is less certain, whether at *Pemsey*, *Hastings*, or *Newenden*, tho' he inclines to one of the former. The *Weald* was formerly called *Sylva Andred*, a Desert place unpeopled, fill'd only with Herds of Deer and Drovers of Hogs. He ends this Treatise with an Enumeration of the Quit-rents formerly paid out of the *Weald*, as *Gavel-swine*, *Scot-ale*, *Pannage*, *Gate-penny*, *Sumer-hus-silver*, *Corredy*, and *Danger*.

The whole is concluded with a Catalogue of the Lord Wardens of the Cinque-Ports.

An Additional Note to Page 670. of this Transaction.

Mention being made in this Letter of Mr. *Banisters*, of the little Pointel found under the Wings of several

veral Flies, I thought fit to transcribe what Dr. *Hook* says concerning the same in his *Micrographia*, and to give the Figure thereof, as it is by him described. See *Lit. Q.* in regard the Book is very scarce, *Micrographia, Observ.* 38. pag. 173. ' Whilst I was examining and considering the ' curious Mechanism of the Wings, I observed that un- ' der the Wings of most kinds of Flies, Bees, &c. there ' were placed certain Pendulums, or extended drops (as ' I may call them from their resembling Motion and Fi- ' gure) for they much resembled a long hanging drop of ' some transparent viscous Liquor ; and I observed them ' constantly to move just before the Wings of the Fly be- ' gan to move ; so that at the first sight I could not but ' guess, that there was some excellent use as to the Re- ' gulation of the Motion of the Wings, and did fancy that ' it might be something like the Handle of a Cock, which ' by vibrating to and fro, might as 'twere open and shut ' the Cock, and thereby give a passage to the determinate ' Influences into the Muscles : Afterwards, upon some o- ' ther Trials, I supposed that they might be for some use ' in Respiration, which for many Reasons I suppose those ' Animals to use ; and methought it was not very impro- ' bable, but that they might have convenient passages un- ' der the Wings for the emitting (at least) of the Air, if not ' admitting, as in the Gills of Fishes is most evident. Or per- ' haps this Pendulum might be somewhat like the Staff to ' a Pump, whereby these Creatures might exercise their ' Analogous Lungs, and not only draw in, but force out the ' Air they live by : But these were but Conjectures, and ' upon further examination seem'd less probable.

AN ADVERTISEMENT.

THE Ingenious are desired, That if they have any loose-Papers relating to the same Design with those of Sir *William Petty's*, Printed in this Transaction, they will please to communicate them, which Favour shall be acknowledged by the like Communications by the Publisher.

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