IV. *Extracts of Two Letters from Dr.* John Lining, *Phyſician at* Charles-Town *in* South Carolina, *to* James Jurin, *M. D.* F. R. S. *giving an Account of* Statical Experiments *made ſeveral times in a Day upon himſelf, for one whole Year, accompanied with* Meteorological Obſervations; *to which are ſubjoined Six* General Tables, *deduced from the whole Year's Courſe.*

South-Carolina, Charles-Town, Jan. 22. 174$\frac{0}{1}$.

SIR,

Read May 19. 1743. THAT candid and generous Principle which ſo univerſally poſſeſſes the Breaſts of all true Friends to phyſical Literature, diſpoſing them to give Aſſiſtance and Advice, even to ſuch of the *Illiterati* who ſhew a Diſpoſition of Inquiry after Truth; and that eminent Character you ſo juſtly bear in the Learned World; were ſufficient Arguments with me, to lay before you, as a Specimen, one of my *Meteoro-Statical* Tables: The Favour of your Opinion of the Method I have obſerved, will be moſt acceptable.

I began theſe Experiments the Firſt of laſt *March*, and have continued them ever ſince, with the Loſs only of a few Days; and propoſe to continue them till the Year is finiſhed, afterwards ſhall make them a few Days in every Month, and as conſtantly as poſſible in epidemic Seaſons.

What firſt induced me to enter upon this Courſe, was, that I might experimentally diſcover the Influences of our different Seaſons upon the Human Body; by which I might arrive at ſome more certain Knowledge of the Cauſes of our epidemic Diſeaſes, which as regularly return at their ſtated Seaſons, as a good Clock ſtrikes Twelve when the Sun is in the Meridian; and therefore muſt proceed from ſome general Cauſe operating uniformly in the returning different Seaſons.

Keil, indeed, has obliged the World with his *Statical Experiments*, but theſe his extenſive Practice made leſs perfect than he could have wiſhed, having many deficient Days, and he ſeldom gives the diurnal Perſpiration. Had theſe been carried on with all the Conſtancy poſſible, they could not have ſo clearly demonſtrated the Changes made in the Animal Oeconomy, in the ſeveral Seaſons, as would a Courſe of ſuch Experiments made in our Clime, where thoſe Influences are in a much more eminent Degree; and where the Excurſions from Heat to Cold are very conſiderable, and often ſudden, I having ſeen 30 Degrees Difference in 24 Hours by *Fahrenheit's* Thermometer.

Sanctorius, it is true, lived in a warm Climate, and has deduced many uſeful Aphoriſms from his Experiments; but then he has not left us the Experiments themſelves: Hence we are not only deprived of the Authorities from whence he deduced his Aphoriſms, but likewiſe of a long-continued Series of Experiments; from whence the Changes induced upon the human Frame, in the different Seaſons, might have experimentally appeared.

From

From the Hiſtories of the Air and epidemic Diſeaſes, we learn what Conſtitutions of the Air are productive of certain Diſeaſes: Were we, however, once furniſhed with a Courſe of Statical Experiments of one whole Year, together with the Hiſtory of the Weather, we, probably, might have more diſtinct Views of the Nature of the Diſeaſes themſelves, by knowing experimentally the Changes produced in our Conſtitutions, diſpoſing us to ſuch and ſuch Diſeaſes, in certain Periods of the Year.

To theſe Tables I likewiſe would have added an Analyſis of a little of my own Blood and Urine, in every Month, with the Blood's Coheſion, could I have got the Inſtruments: But that I propoſe afterwards to do, if I can get the ſame Kind which Dr. *Langriſh* analyſed the Blood, *&c.* with, and an Inſtrument exactly the ſame with his, for meaſuring the Blood's Coheſion.

The Method I have obſerved in the Tables is this:

I weigh myſelf twice every Day, once in the Morning immediately after I riſe, and again before I go to Bed at Night. As in *July* 1. my Weight at $6\frac{1}{2}$ *a. m.* was *lib.* 165. 13. 0. at 10 in the Night was 167. 5. 4. *&c.* Twelve Ounces was the Quantity of Urine excreted from $6\frac{1}{2}$ in the Morning, to $10\frac{1}{2}$ that Night: And $9\frac{1}{2}$ Ounces was the Urine from 10 *p. m.* of the Firſt Day, to $7\frac{1}{2}$ in the Morning of the Second Day. The Figures placed in the next Column, directly oppoſite to theſe Quantities of Urine, expreſs the Quantity perſpired in the ſame Space of Time; *e. g.* 68 Ounces and 3 Drachms was perſpired betwixt $6\frac{1}{2}$ *a. m.* and $10\frac{1}{2}$ *p. m.* in the Firſt Day, and 23 $\frac{1}{4}$ Ounces the Quantity

tity perſpired from 10½ *p. m.* of the Firſt Day, to 10½ *a. m.* in the Second Day.

The Number of Pulſes I take in the Morning, and immediately before I go to Bed at Night.

In the Column titled *Excret. Alv.* the Quantity is in Ounces and Drachms. When the Figures are placed in the upper Part of the Column, that Excretion was in the Morning; when in the middle or lower Part of the Column, then it was in the Middle of the Day, or in the Night before Bed-time. Where 1, 2, or 3, occur in a Column, they expreſs the Number of Stools that Day, as in *July* 6. there were 3 Stools.

The Figures placed in all the reſt of the Columns, are in Ounces and Decimals: The Calculations I made with a Two Foot ſliding *Gunter's* Scale.

In the Column *Urina* 24 *horarum*, you have the Urine of 24 Hours calculated each Day; becauſe, as I do not always weigh at one Hour in the Morning, the Space of Time betwixt Two Morning Weighings muſt be unequal; whence the Difference betwixt the Quantities of each Day does not appear; as from *July* 1. 6½ *a. m.* to *July* 2d 7½ *a. m.* is 25 Hours, and the Quantity of Urine in that Time amounts to 21½ Ounces, which, calculated to 24 Hours, is 20.62 Ounces. In the ſame Manner have I calculated the Perſpiration of 24 Hours.

In the Column *Urina Diurna* 6 *Horarum*, is the mean Quantity of Six Hours diurnal Urine calculated; as *July* 1. from 6½ *a. m.* to 10½ *p. m.* being 16 Hours, the Quantity of Urine in that Time is 12 Ounces; which, calculated to Six Hours, (upon Suppoſition

ſition that the Urine was equally ſecreted in all theſe Hours, which we know never can be) amounts to 4.50 Ounces.

In the ſame Manner have I calculated the Nocturnal Urine of Six Hours, and the Diurnal and Nocturnal Perſpiration of Six Hours; which ſerves very well in the following Columns, to ſhew their Differences, where they are compared together. For the Space of Time in which the Diurnal Urine and Perſpiration are excreted, is much greater than that in which the Nocturnal Urine and Perſpiration are excreted; whence, without comparing them together, by taking their Means in equal Spaces of Time, their Difference would not appear, as it now does in theſe Tables at firſt Inſpection.

In the Column *Viginti quatuor Horarum Excreta*, is the whole Quantity excreted in 24 Hours, which is found out by adding together the Stools, and the Urine and Perſpiration of 24 Hours by Calculation; whence the exact Quantity retained, or *è contra*, in every 24 Hours, appear in the ſucceeding Two Columns.

By theſe tedious Calculations, I have endeavoured, as much as poſſible, to prepare the Tables for Uſe, that juſt Deductions may more eaſily be drawn from them.

In the Columns *Ciborum Quantit. & Potulentorum Quantit.* the Quantities are in Ounces and Drachms. The Weights I have uſed are 60 grs = 1 Drachm, 8 Drachms = 1 Ounce, 16 Ounces = one Pound.

The Cloaths in which I dreſs before I weigh myſelf are taken care of, ſo that their Weight ſhall

vary

vary as *little* as poſſible in the different Changes of the Air's Humidity.

In the Summer, as Opportunity ſerved, I weighed myſelf every Hour, Second or Third Hour, through the Day, to inveſtigate the Difference of the Urine and Perſpiration, in different Hours of the Day, under different Circumſtances; One Table of which I now ſend you, in which the Urine and Perſpiration are likewiſe in Ounces and Drachms, and is to be read together with the Account of the Quantity of Meat, Drink, and Exerciſe uſed; *e. g.*

July 3d, betwixt 11 ¼ and 12 ½, I drank 20 Ounces of Punch, uſed no Exerciſe, was not expoſed to the Wind, and was cloathed in a Holland Jacket unbuttoned: Made in that 1 ¼ Hour, One Ounce of flammeous Urine, and ſweated ſo exceſſively, the Heat of the Air I ſat in being 87, that both my Shirt and Jacket being wet with Sweat, was obliged to ſhift: Whence, though the Perſpiration was, no doubt, greatly diminiſhed by the Coldneſs of the wet Cloaths, towards the End of the 1 ¼ Hour, yet I perſpired betwixt 11 ¼ and 12 ½, 14 ⅝ Ounces.—— Having ſhifted, and being cloathed in a Holland Jacket and Chince Gown, was expoſed, betwixt 12 ¾ and 2 ¾, to the Third Degree of the Wind's Force; eat 10 ⅝ Ounces of roaſted Lamb, Bread and Shallots, drank 40 Ounces of Punch, and uſed no Exerciſe; in theſe Two Hours made 3 ⅜ Ounces of Urine, and, being expoſed to the Wind, perſpired only 12 Ounces, though I ſweated a little all the Time, and though the natural Heat of the Air was the ſame as in the former Experiment.——The ſame Day again, betwixt 2 ¾ and 5 ½, *p. m.* my Cloathing being the ſame, and uſing

uſing no Exerciſe, I drank betwixt 23 and 25 Ounces more of Punch; and the Air being cooled by the Clouds overſpreading the Heavens, the Quantity of Urine was greatly increaſed, amounting in theſe 2½ Hours to 28⅝ Ounces; but the Perſpiration was ſo much diminiſhed, that the Quantity of humid Particles attracted by my Skin exceeded the Quantity perſpired in theſe 2½ Hours by 8⅓ Ounces. Two more Inſtances of this Attraction you have in the ſame Table; and, no doubt, it often occurs in the Summer, and might be diſcovered by any who can conveniently weigh themſelves every Second or Third Hour of the Day. Here there was no Waſte of the Fluids, the prediſponent Cauſe, according to *Keil*, of ſuch Attraction, but Reaſon to ſuſpect the contrary, by drinking ſo plentifully of Punch.

The Punch, or *Diapente*, as I have improperly called it, is made thus: Take Water 2 Pounds, Sugar 1½ Ounce, recent Juice of Limes 2½ Ounces, Rum 3½ Ounces. *M.* This is the Punch we commonly drink in the Summer; but that which we drink in the Fall and Winter is richer, having more Suggar and Rum, and leſs of the Acid. It is a pleaſant, ſubacid, cooling and exhilarating Drink; and proves an excellent Diaphoretic in warm Weather, and a good Diuretic in cold Weather.

The Barometer is a common portable one; the Diameter of its Bore is about ⅓ of an Inch.

The Thermometer is *Fahrenheit's*; the other Thermometer is made by *Thomas Heath*, in *London*; and is divided into 90 equal Parts; 65 is the freezing Point, and 49 temperate: I ſuſpect it to be the ſame with *Hauksby's*, and have called it ſo in the Tables.

The Hygroſcope is a Whip-cord, prepared after the ſame Manner as that of the SOCIETY's in *Edinburgh*; the Difference betwixt its greateſt and leaſt Length, by their Manner of Preparation, I found to be Five Inches; for which I made an Index Five Inches long, and divided it into 100 equal Parts, the Firſt of which is the Hygroſcope's greateſt Length.

Theſe Inſtruments are conveniently placed on the Outſide of a N. E. Window, in a large ſquare Box, about 3 Feet broad, 6 Feet high, and 1 ½ Feet deep; which is ſo conſtructed, that neither the Sun nor Rain can have Acceſs to the Inſtruments, and is at the ſame time ſufficiently perflated to ſhew the Temperature of the Air, having a great Number of large Holes, regularly placed, and paſſing obliquely upwards, in both Sides, and in the Front, with Weather-boards placed over each Range of Holes, ſo as to hang over them obliquely downwards; and has likewiſe a large Window in the Front, which is open from Morning to Bed-time: The Shutters of the Window are in many Places perforated obliquely upwards, that the Air may have a free Circulation through the Box, when the Window is ſhut at Night.

In the Column *Cœli Facies*, I have only taken Notice of the Sky's Appearance from the *Zenith* to within about 30 Degrees of the Horizon.

N. Nubes. ' Small Rain. ☾. Thunder.
Op. Opaces. '' Greater Rain. And
Ob. Obductum. ''' Very great Rain.
T. Tenues.

The Characters for Rain expreſs the Time in which it rained, according as they are placed in the Column. When in the upper Part, it rained in the Forenoon:

In

In the middle, Rain about the Middle of the Day: In the under Part, Rain in the Evening, or Night before Bed-time; and when placed upon the Lines which divides the Days, then it rained in the Night.

I have obſerved the ſame Rule with the Character of Thunder, in placing the upper Part of it *a* (♀*a*) in the ſame manner as of the Character of Rain; and likewiſe have placed it in that Direction, by which the Point of the Compaſs where the Thunder began, may be known, the Part (*a*) pointing to the Place where the Thunder began, ſuppoſing the Points of the Compaſs to lie in the ſame manner in the Tables as in Maps. The numerical Figures placed upon its Left-hand, expreſs the Degree, Violence, or Continuance of the Thunder, 4 being the greateſt.

Of the Wind's Force, I am obliged to judge by my Senſes. Four Degrees of it being inſufficient in ſuch Experiments, I have made Eight. For a ſmall Increaſe of the Wind's Force has a conſiderable Influence in ſweeping away the Heat of our Cloaths; and, thereby cooling the Skin, diminiſhes Perſpiration.

The Depth of the Rain is in Inches and Decimals.

I make Three Obſervations, by theſe Inſtruments, of the Weather every Day, *viz.* in the Morning, and at Bed-time, at the ſame Hours in which I weigh myſelf, and the other at Three *p. m.*

Cubiculi Calor is the Heat of the Room where I ſleep or ſit, by *Fahrenheit*'s Thermometer; have mentioned in the *Obſervationes Miſcell.* when I was expoſed, in it, to the Wind.

Thus have I now ſpent near One Year, with no ſmall Labour, Confinement, and Expence in the Loſs of Practice, in making theſe Experiments and

Calculations; and if they will be of any Service to Mankind, of which you are the moſt proper Judge, ſhall then obtain all I had in View, in entering upon the Courſe. I am,

SIR,

Your much obliged,

and very humble Servant,

John Lining.

South-Carolina, Charles-Town, April 11. 1741.

SIR,

Read May 19. 1743.

NEAR Three Months ago, I ſent you One Table of my *Statical Experiments*, as a Specimen, praying your Opinion of the Method, and if they promiſed any Helps towards the Advancement of the Medical Art. I will not take up your Time, in giving you the Reaſons which firſt induced me to undertake a Courſe of ſuch troubleſome Experiments for One whole Year, which I have now finiſhed: However, I preſume, that a Courſe of ſuch Experiments, made in a Clime where the Excurſions from Heat and Cold, in the different Seaſons, are very great, and the Tranſitions often ſurpriſingly ſudden, theſe Experiments, I ſay, made almoſt every Day through the Year, wherein the Day's Urine and Perſpiration are diſtinguiſhed from the Night's, may be of ſome Uſe in illuſtrating the Nature and prediſponent Cauſes of Epidemic Diſeaſes, which ſo regularly return at ſtated Seaſons; and eſpecially as nothing, I know of, is extant of that Na-

Nature, ſo complete as I have endeavoured: But of this, Sir, you are the beſt Judge.

Leſt the Tables I ſent you before, ſhould be loſt, I have again preſumed to trouble you with this; and have ſent One Table more of the Experiments, being the remaining Part of *July*, and likewiſe Six General Tables deduced from the whole Year's Courſe; theſe General Tables containing ſo many Corollaries deduced from the Whole, and exhibiting, at one View, the Changes made in the ſenſible and inſenſible Excretions through the whole Year, you may communicate to the ROYAL SOCIETY. All the *Means* in theſe Tables are calculated after your Method. I am,

SIR,

Your very humble Servant,

John Lining.

N. B. The Table for *July* would have taken up too much Room here: I therefore thought it better to inſert only the general Tables, in order to give a general Idea of the whole Year's Obſervations, which would make a ſmall Volume by themſelves. *C. M.*

TABULA Prima

Exhibet Ciborum & Potulentorum quantitatem uncialem & denariam, itemque Excretorum quorumvis ſummam in diebus omni menſe memoratis, in quibus Statica feci Experimenta; unde Incrementum & Diminutio ponderis humani per totum annum abunde patet.

Experiment. Conficiend. Dies.		*Cibus.*	*Potus.*	*Urina.*	*Perſp.*	*Excret. Alvin.*	*Ingeſta quam Excreta. Major.*	*Minora.*
Mart.	13	297. 87	1282. 37	971. 50	548. 50	43. 00	17. 25	
	12	332. 12	1026. 37	793. 37	532. 37	46. 00		13. 25
April.	13	310. 12	1096. 12	798. 62	591. 62	50. 25		34. 24
	10	244. 75	854. 12	562. 37	506. 00	27. 87	2. 63	
Maio	16	424. 25	1293. 37	880. 12	816. 37	61. 00		39. 87
Junio	14	367. 37	1431. 37	804. 37	927. 00	42. 00	25. 00	
	14	318. 12	1447. 50	739. 87	1000. 87	52. 75		27. 87
	15	338. 37	1535. 87	780. 87	1069. 50	57. 12		33. 25
Julio	16	378. 37	1787. 75	787. 00	1301. 37	66. 50	11. 25	
	15	378. 12	1614. 50	569. 87	1387. 37	55. 75		20. 37
Aug.	15	398. 75	1591. 00	823. 87	1129. 37	50. 37		13. 61
	15	357. 37	1565. 62	838. 37	998. 12	76. 87	9. 62	
Sept.	15	350. 00	1599. 25	669. 62	1199. 00	81. 75		1. 12
	15	352. 75	1244. 50	532. 12	1113. 75	52. 25		100. 87
Octo.	16	368. 62	1134. 50	749. 00	642. 75	80. 37	31. 00	
	15	373. 75	1123. 87	729. 00	621. 50	110. 12	37. 00	
Nov.	15	413. 62	1284. 00	981. 62	609. 37	64. 00	42. 63	
	11	284. 75	882. 00	660. 62	442. 75	33. 25	30. 13	
Dec.	13	343. 25	1186. 25	875. 12	555. 12	47. 25	52. 01	
	14	383. 25	1285. 75	1036. 75	593. 75	53. 75		15. 25
Jan.	15	357. 62	1320. 75	958. 50	629. 75	50. 87	39. 25	
	13	304. 75	1328. 37	1069. 50	489. 37	62. 50	11. 75	
Febr.	15	382. 00	1381. 87	1138. 75	563. 87	48. 62	12. 63	
	13	306. 62	1244. 75	1041. 37	484. 75	41. 50		16. 25

Tab. II.

	Urina 24 *Horarum.*			*Perſpiratio* 24 *Horarum.*		
	Max.	*Min.*	*Med.*	*Max.*	*Min.*	*Med.*
Mart.	102. 20	33. 40	70. 59	74. 75	28. 00	43. 23
April.	87. 50	36. 00	59. 17	69 40	34. 00	47. 72
Maius	88. 12	25. 25	56. 15	94. 00	30. 62	58. 11
Junius	85. 00	28. 70	52. 09	106. 90	36. 75	71. 39
Julius	92. 90	20. 62	43. 77	105. 00	51. 90	86. 41
Auguſt.	76. 50	31. 00	55. 41	107. 00	38. 90	70. 91
Septemb.	78. 75	11. 15	40. 06	130. 00	42. 37	77. 09
Octob.	73. 40	22. 45	47. 67	63. 10	30. 20	40. 78
Novemb.	99. 00	39. 50	63. 16	49. 30	29. 00	40. 47
Decemb.	143. 50	41. 00	70. 81	56. 60	27. 65	42. 55
Jan.	121. 00	39. 75	72. 43	49. 25	33. 10	39. 97
Febr.	115. 00	45. 60	77. 86	46. 10	24. 40	37. 45

TAB. III.

Quantitates mediæ & Urinæ & Perſpirationis tum diurnæ tum nocturnæ, quæ quovis anni menſe in paribus temporibus ſecernebantur, earumque ad ſe invicem monſtrantur rationes.

	6 horar. Media.	Urina Diurna	6 horar. Med.	Urina Nocturna	6 horar. Media.	Perſper. Diurna	6 horar. Media.	Perſpiratio Nocturn.	Urina Nocturna 6 bor. eſt ad Urinam Diurn. 6 bor. ut 1 ad.	Perſpir. Nocl. 6. bor. eſt ad Perſpir. Diurn. 6 bor. ut 1 ad	Urina Diurna 6 horar. eſt ad Perſpir. Diurn. 6 bor. ut 1 ad	Urina Nocturna 6 bor eſt ad Perſpir. Noct. 6 bor. ut 1 ad
Mart.	18.	35	15.	10	10.	94	9.	90	1. 21	1. 11	0. 59	0. 65
Aprilis	16.	39	12.	33	13.	03	10.	24	1. 33	1. 27	0. 79	0. 91
Maius	13.	13	15.	58	16.	44	10.	64	0. 84	1. 54	1. 25	0. 69
Junius	12.	13	15.	37	20.	69	12.	68	0. 79	1. 63	1. 70	0. 82
Julius	09.	02	14.	14	26.	73	12.	43	0. 63	2. 15	2. 96	0. 88
Auguſt.	12.	41	17.	02	21.	32	10.	08	0. 73	2. 11	1. 71	0. 59
Sept.	10.	54	12.	22	22.	58	11.	07	0. 86	2. 04	2. 14	0. 90
Octob.	10.	33	14.	30	10.	37	9.	88	0. 72	1. 05	1. 00	0. 69
Nov.	16.	87	13.	88	10.	64	9.	92	1. 21	1. 07	0. 63	0. 71
Dec.	19.	02	14.	51	12.	03	8.	19	1. 31	1. 47	0. 60	0. 56
Jan.	21.	16	12.	46	11.	26	8.	22	1. 70	1. 37	0. 53	0. 66
Febr.	23.	19	13.	31	10.	43	7.	56	1. 74	1. 38	0. 45	0. 57

Vide TAB. IV. p. 506.

TAB. V.

Quoniam Ingeſtorum Quantitas in ſingulis alterius Tabulæ Columnis multum inter ſe diſcrepat, adeo ut Excreti cujuſvis Incrementum, atque Imminutio, uti ab aëris temperamento aguntur, haud liquido conſtet; hæc ideo ſubducitur Tabula, ponendo Ingeſtorum quovis menſe vel 30 diebus Quantitatem fuiſſe ℥ 3543. 40, quæ Medium 30 Dierum ℥ 8. 40 exſuperat; unde Incrementum ac Imminutio Excretorum ſenſibilium atque inſenſibilium per totum Annum, ſicuti a Cœli temperie, qualis in TAB. IV. exhibetur, moventur, abunde magis apparet.

	Urina	*Perſpir.*	*Excret. Alvin.*	*Pondus Auct.*	*Pondus Immin.*	*Urina. Aucta*	*Urina. Immin.*	*Perſpirat. Aucta*	*Perſpirat. Immin.*	*Ex. Alvin. Auctæ*	*Ex. Alvin. Immin.*
Mart.	2127. 04	1307. 13	107. 87	03. 36							
April.	1913. 16	1563. 17	108. 11		39. 94		213. 88	256. 04		00. 24	
Maius	1691. 27	1763. 49	102. 39		11. 75		321. 89	200. 32			05. 72
Junius	1481. 41	2016. 41	106. 94		59. 36		209. 86	252. 92		04. 55	
Julius	1152. 34	2297. 65	104. 07		08. 66		329. 07	281. 24			02. 87
Aug.	1506. 18	1927. 75	115. 29		03. 82	353. 84			369. 90	11. 22	
Sept.	1201. 36	2312. 03	133. 95		101. 94		304. 82	384. 28		18. 66	
Oct.	1745. 60	1492. 99	226. 22	80. 56		544. 24			819. 04	92. 27	
Nov.	2029. 42	1307. 82	117. 87	90. 29		283. 82			185. 17		08. 35
Dec.	2116. 05	1273. 94	111. 85	43. 56		086. 63			33. 88		06. 02
Jan.	2181. 87	1188. 59	122. 39	52. 55		065. 82			85. 35	10. 54	
Febr.	2334. 72	1120. 20	96. 26		06. 09	152. 85			68. 08		26. 13

TABULA

A prima deducta, Ingeſtorum ac Excretorum ſingulis menſibus unlibet menſe 30 diebus, eademque Ingeſtorum & Excretorum diebus tionem quam ſingula Excreta habent ad Ingeſta, Urinaque ad Per-Annum inter ſe invicem habent, cauſa pateat apertius, ſtationes Ba-Min. & Mediæ, cum Aquæ pluviæ altitudine unciali & denaria

	Cibus.	*Potus.*	*Ingeſta.*	*Urina.*	*Perſpir.*	*Excret. Alvin.*	*Ingeſta quam Excreta*	
							Maj.	*Minor.*
Mart.	758. 82	2762. 61	3521. 43	2112. 66	1298. 33	107. 15	03. 29	
Aprilis	724. 92	2545. 91	3270. 83	1765. 00	1442. 12	99. 74		36. 03
Maius	791. 35	2746. 15	3537. 50	1686. 92	1759. 56	102. 19		11. 19
Junius	679. 21	3086. 76	3765. 97	1573. 58	2141. 86	113. 63		63. 10
Julius	732. 85	3290. 52	4023. 37	1307. 60	2607. 41	118. 10		09. 83
Aug.	756. 12	3856. 62	3912. 74	1662. 24	2127. 49	127. 24		04. 23
Sept.	702. 75	2843. 75	3546. 50	1201. 72	2312. 75	134. 00		101. 99
Oct.	719. 34	2187. 47	2906. 81	1431. 19	1224. 08	185. 47	66. 07	
Nov.	801. 93	2486. 72	3288. 65	1882. 48	1213. 12	109. 33	83. 72	
Dec.	806. 68	2746. 34	3553. 02	2120. 60	1276. 68	112. 10	43. 64	
Jan.	709. 25	2853. 48	3562. 73	2192. 52	1194. 40	122. 99	52. 80	
Febr.	735. 80	2818. 12	3553. 92	2340. 3	1123. 20	96. 50		06. 12
Summa Total.	8919. 02	33624. 45	42443. 47	21277. 00	19721. 00	1428. 44		

cialem & denariam Quantitatem complectitur; poſitis in quo hiulcis ratione, ac ubi facta fuerint Experimenta: Tum propor ſpirationem: Deinde ut rationem diverſarum, quas hæc per totum rometri Max. & Min. ut & Thermometri & Hygroſcopii Max adjiciuntur.

Urina eſt ad Inceſta ut 1 ad	Perſpir. eſt ad Inceſta ut 1 ad	Excret. Alvin. ſunt ad Ingeſt. ut 1 ad	Urina eſt ad Perſpir. ut 1 ad	Barometri Altitudo. Max.	Barometri Altitudo. Min.	Therm. Fahren. Altitudo. Max	Therm. Fahren. Altitudo. Min.	Therm. Fahren. Altitudo. Med.	Hygroſcop. Altitudo. Max	Hygroſcop. Altitudo. Min.	Hygroſcop. Altitudo. Med	Pluviæ Quantit
1. 66	2. 71	32. 86	0. 61	30. 40	29. 60	80	34	57	25	4	12	1. 141
1. 85	2. 27	32. 89	0. 82	30. 48	29. 58	83	51	67	14	2	7	1. 092
2. 15	2. 01	34. 61	1. 04	30. 30	29. 90	87	56	74	30	2	9	5. 612
2. 39	1. 75	33. 14	1. 36	30. 28	29. 90	90	66	79	28	5	10	4. 648
3. 07	1. 54	34. 06	1. 99	30. 22	29. 98	91	70	81	30	4	11	3. 013
2. 35	1. 83	30. 75	1. 28	30. 25	29. 95	90	67	77	34	4	12	7. 301
2. 95	1. 53	26. 46	1. 92	30. 36	29. 86	84	56	75	19	6	12	3. 200
2. 03	2. 37	15. 67	0. 85	30. 50	29. 95	73	35	56	33	4	12	1. 257
1. 21	2. 71	30. 08	0. 64	30. 55	29. 73	67	32	52	31	3	14	1. 848
1. 67	2. 77	31. 71	0. 60	30. 58	29. 65	69	21	42	29	3	10	2 736
1. 62	2. 98	28. 96	0. 55	30. 65	29. 54	63	31	45	40	6	18	4 492
1. 51	3. 16	36. 82	0. 48	30. 63	29. 88	68	30	46	43	7	16	3. 135
												39. 475

Vide TAB. V. p. 505.

Tab. VI.

A quarta deducta, Ingeſtorum ac Excretorum per varia anni tempora ſummam, eorumque ad ſe invicem rationes exhibet.

	Ingeſta.	*Urina.*	*Perſpir.*	*Excret. Alvin.*	*Pondus. Auct.*	*Immin.*	*Urina eſt ad Ingeſta ut 1 ad*	*Perſpiratio eſt ad Ingeſta ut 1 ad*	*Ex. Alvinæ ſunt ad Ingeſta ut 1 ad*	*Urina eſt ad Perſpir. ut 1 ad*
Ver.	10346. 18	5218. 00	3863. 65	303. 39		38. 86	1. 66	2. 67	34. 10	0. 62
Æſtas.	11326. 84	4568. 21	6508. 83	333. 92		84. 14	2. 48	1. 74	33. 92	1. 42
Autumn.	10366. 05	4295. 17	5664. 32	446. 71		40. 15	2. 41	1. 83	23. 20	1. 32
Hyems.	10404. 40	6195. 62	3684. 20	344. 42	180. 16		1. 68	2. 82	30. 20	0. 59

℥. D.

24. 78 Ciborum
93. 12 Potulent.
117. 90 Ingeſtor. } Media Quantitas Quotidiana.

59. 10 Urinæ
54. 78 Perſpir.
3. 97 Ex. Alvin. } Media 24 horarum per totum annum Quantitas Quotidiana.

9042. 92 Cibus
33990. 05 Potus } 365 Dierum.

4032. 97 = ℔ 2689 & ℥ 9 Ingeſtorum quæ ſpatio unius Anni ſumuntur.

Medium

Medium pondus Matutinum eſt ad totam Ingeſtorum unius anni Quantitatem ut 1 ad 15. 97; & ad totum Ingeſtorum unius menſis ut 1 ad 1. 34.

	℔	℥	ʒ		
Jan. 19. . . .	177	: 00	: 4	Maximum }	Pondus Ma-
Oct. 1. . . .	159	: 13	: 6	Minimum }	tutinum.
	17	: 02	: 6	Differentia quidem magna inter pondus Autumnale & Hyemale!	
	168	: 07	: 1	Medium pondus Matutinum.	

Urinæ	totius Anni ſunt ad		2. 02.
Perſpiratio	Ingeſta ut 1 ad		2. 18.
Excreta Alvina			30. 13.

Perſpiratio totius Anni ſe habet ad Urinam ut 1 ad 1. 08.

Excretiones Alvinæ totius Anni ſe habent ad Urinam & Perſpirationem ſimul ſumptas ut 1 ad 28. 7; & ad totum Ciborum totius Anni ut 1 ad 6. 24.

Perſpiratio minima Hyemalis per 30 Dies eſt ad Perſpir. Max. Æſtivam eodem tempore ut 1 ad 2. 06.

Urina Minima Æſtiva per 30 Dies ſe habet ad Urinam Maximam Hyemalem, eodem tempore ut 1 ad 2. 03.