

Ankographia [sic], sive convallium descriptio. In which are briefly but fully expounded the origine, course and insertion; extent, elevation and congruity of all the valleys and hills, brooks and rivers, (as an explanation of a new philosophico-chorographical chart) of East-Kent. Occasionally are interspers'd some transient remarks that relate to the natural history of the country, and to the military marks and signs of Cæsar's rout thro it, to his decisive battle in Kent ... / by Christopher Packe, M.D.

Contributors

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A N K O Γ P A Φ I A,

S I V E

Convallium Descriptio.

IN WHICH ARE BRIEFLY BUT FULLY EXPOUNDED

T H E

Origine, Course and Insertion ;
Extent, Elevation and Congruity

O F A L L T H E

V A L L E Y S *and* Hills,

Brooks *and* Rivers,

(A S A N

E X P L A N A T I O N

O F A N E W

Philosophico-Chorographical

C H A R T

O F

E A S T - K E N T.

Occasionally are Interspers'd some Transient Remarks that relate to the *Natural History* of the Country ; and to the Military Marks and Signs of *Cæsar's* Rout thro it, to his *Decisive* Battle in Kent.

Rura mihi, et rigui placeant in vallibus Amnes — — 485.

Felix qui potuit rerum cognoscere Causas. — — — 490.

VIRGIL. *Georgic.* lib. 2.

By CHRISTOPHER PACKE, M D.

CANTERBURY: Printed and Sold by J. Abree, for the AUTHOR.

M D C C X L I I I.

[Price 2s. 6d.]

professing the Business of a Map-maker, “ is the Best Map
 “ of this or any other Country that has yet appear’d; as
 “ it’s Scale is the Largest of any, and withall most uni-
 “ formly Consistent with the Work, quite thro’ the whole
 “ Course of the Country:” Yet the plain and *Avowed De-*
sign of it is to “ exhibit the System of all the Vallies; to
 “ show their Number, Connection, Extent, and Descent
 “ into their several Collections; to set forth how the Wa-
 “ ters are Generated, and how from them the several Rills,
 “ Brooks, Branches and Channels of the Rivers, particu-
 “ larly of the *Stour* and its Nailbourns, are Form’d in their
 “ distinct Lobes, Districts and Regions; up from their
 “ very Springs down to their Inlet into the Sea:” At the
 same time declaring that This Tract of Land which I had
 under Examination, “ was a most commodious *Specimen* of
 “ this Work of Nature thro’ the whole Island of *Great*
 “ *Britain.*” The *Proposals* also for my Subscription soon
 after published set forth, “ that it is the main or *Principal*
 “ Design of the Work “ to describe the Rise and Progress
 “ of the *Vallies*; the Directions or Course of both the
 “ greater Chains and the lesser Ridges of the *Hills*, that are
 “ the several Boundaries of these Vallies; to compute their
 “ several Elevations or *Altitudes*; both Respective to one
 “ another, and Absolute from the Level of the Sea at *Sand-*
 “ *wich-Bay.*” These, with the farther Notice of “ Medi-
 “ cinal Springs; Woods in their proper Situation and Ex-
 “ tent; Quarries of Stone; Sand, Gravel, and Chalk-Pits;
 “ Minerals; Soils; and all Local Curiosities both of Art
 “ and Nature;” one would think, these are all of them so
 far out of, and *above* the Design of a *Map*, that it were
 impossible, after this, for any one to receive it in so limited
 a View.

And

And to this plain Design the *Specimen* of a small Part of the Work, that I gave out with these Proposals, was exactly conformable. The Appearance it there made, shew'd as manifest a Difference between this Chart and a Map, as there is between the Frame of any Building, and the same Finish'd into a compleat House, adorn'd with all it's Furniture. For, what has a *Map* to do with the *Surface* of the Earth more than to afford it's several Objects, their Situations? And what is it's whole Design more than a Collection of the Names of Cities, Towns, Villages, &c. set upon a *Plain* Surface, at a proper Distance, and in due Bearings to one another; with here and there a few Hills, Trees, and *General Streams* of the Rivers, scatter'd about in no very exact manner? This any one may easily perceive, in our Maps of *Kent*, (if he will be at the Trouble of comparing them with the Chart) which nevertheless, as Maps, bear a good Character among the Curious. But all these Articles, which make up the *Whole* of their Work, and many more than they can take any Notice of, are only superadded, or rather are laid as the *Foundation* to my main Work; as they are partly *Ornaments* to what would else be a *naked* System of Philosophy, and partly, as they are, *Marks* or Signs, by which I set off, and carry on the Course of every Valley; every Water; every Ridge and Ledge of Hills; and conduct myself in filling up every intermediate Rod of Ground, with every thing, as it stands "in its proper Situation and
 " Aspect; to the end that the beautiful Distinction of all
 " the Parts, and the exact Harmony of the whole Country
 " may appear," *not as in a Map*, "but as in a Landskip,
 " as well as the main Design of the Work will allow."

Neither, indeed, need we go any farther than to the Chart *Itself* to find the Difference between the *Main* or Philosophical, and the *auxiliary* or geographical Design. Do but

compare the Work within my Sixteen Mile Circle, or so far any where as I *profess* to extend it, with the *Weald* of *Kent*, or *Romney Marsh*: These, as they are out of my Province, I only have mapp'd slightly to the Extent of my Paper, that I might show you how they lye to our *East Kent*. And, though, to make them a little agreeable in their Aspect to the main Work, I have given them a Tinct or Ground over their Surfaces, suitable to the general Nature of their Soils; yet how *different* are their Faces, how much Inferior are their whole plain, *unwrought* Ground-Plats, to the others, which I profess to finish *Philosophically* as they lye in Nature!

It may, perhaps, seem a little needless to my candid Reader, that I should so laboriously set myself to prove that there is a wide and essential Difference between this Chart and a Map; that it is exceedingly *superior* to it, in the Quantity, Dignity and Utility of the Work. But he may perhaps be ignorant that I have Occasion (and I would do it modestly) to vindicate the Honour and Reputation of this new, and I had almost said sublime, Work, from those low Notions of it, which, I know, have been unworthily propagated thro' the Publick; with an Intent to make it pass only for a Map, and thereby to depreciate it's Esteem and Interests; even from it's very first Proposal to the World.

After what has been said of the Nature and Design of this CHART, I think there can be no great Occasion to make any Apology for the *want* of the Roads. It has Business enough of its own, of a much more intricate Nature: Business not to be executed in many Places without being already too much *crowded* with numerous Particulars. And, indeed, what an *Appearance* would the Roads make here? How ill would it become this *Picture* to be *scrawled* all over with a Parcel of *double Black Lines*, for ever intersecting one

one another, and all of them *Foreign* from the Nature of the Work? This is peculiarly the Map-maker's business, and *Seller's* or *Simondson's* Maps of *Kent* are sufficient. However -----, this supposed Deficiency will be easily supplied upon the bare Perusal of the Chart: for as so large an Allowance as of one inch and six tenths, is regularly made for each Mile round my Center; this Extends the Country to such a degree, and lays the villages, streets, churches, houses and other Marks so Open to view, that it makes them all too *Distinct*, for any one to be much at a loss to read the Way to any Place he wants. So that after all; these Roads, if I had put them in, would have been quite needless; and could have had no Effect, but hideously to *Deform* and confound this beautiful *Plan* of more Delicate Delineations; the Design of which, tho' very clear and intelligible, is to be examin'd with a little more Attention and Accuracy than such Confusion can admit of.

But before I enter upon the main Design of this Paper, I shall take this Opportunity of making a short *Apology* to my Subscribers, for my *Deferring* the Publication of the Chart so long beyond my Proposed Time. It is now upwards of Five years since I had the honour to present a Draught of the *Central Parts* of my Chart to the *Royal Society*, as a *Specimen* of the Work. This had the good fortune to be so well Received and Recommended by the Worthy then Præsident from the Chair, that I soon finally determin'd to *Publish* it; and accordingly some time after in Printed Proposals, I informed the Publick that they might expect it from me the *Next Year*. It is not in the least to be imputed to my Indolence, or to any Neglect, that the Publication has been postpon'd; but to my *More* than ordinary Care, not to send it abroad, till the Performance could give me myself some good Satisfaction; whatever Trouble

it might cost me. And I was quickly sensible, that this was not then the Condition of my Copy, which I had too hastily thought near finished: For looking upon it now as a matter of Publick Right, and setting myself to Revise it with a little more knowledge of my subject, and a more exact scrutiny into it's Particulars, than I had compos'd it within my *private* Amusement, I found it was so full of *Mistakes*, that I was Dissatisfied with it: And as Repeated Observations, which I had made for twelve months more in my Journeys, thro' Most parts of the country, had enabled me to Correct them, I could not persuade myself to part with it, till I had done it Justice in all points of Moment to the best of my Understanding. And, indeed, to confess whole Truth, I then perceived that, besides it's Errors in some particulars of no small Consequence, the Entire Draughts itself was, thro' my Want of skill and dexterity in the Pencil, so inaccurate and *Rude*, that I judg'd it by no means distinct and *Fair* enough to make a good *Print*, tho' assisted with all the Art of the most Ingenious Engraver: So little did I, like most other Authors, know or Consider how Much I undertook when I Engaged myself to the Publick. These were then the Reasons which obliged me to take More time than I propos'd, or doubtless intended; and as they affect no body but myself with either Pains or Cost, I presume my delay will be so far from needing any farther Excuse, that I may rather hope to receive the Thanks of my Subscribers for the Extraordinary Pains and expence I have been at to serve them Beyond my proposals; and for keeping it so long under my Correction; since otherwise I might have incurr'd their just Displeasure, for sending them a Crude unfinished Thing, of which I should e'er now myself have been heartily ashamed.

In the following Explanation of this Chart, I shall be as *Brief* as possible. What is just necessary to give a *Distinct* notion of each Region and it's Philosophical Districts; and to shew you the Agreement and Harmony of the whole Design; this shall be clearly produced: more cannot be Proposed without entering professedly into the *Natural History* of the country upon the *Plan* of the *Chart*; which would be the Work of a Large volume.

Expla-
nation
of the
General
Scheme.

In the General Construction of my Scheme, it's *Scale* claims the first Notice. This by the Proposals for my Subscription, was to have been done upon an allowance of one inch and *four* tenths to each Mile; and so it was Executed in my Specimen, but when, after finishing the Copy which I proposed to publish, I had for Reasons above given, resolved to begin another; considering, that the more *Room* I gave it, the more *Distinct*, Beautiful and Useful it would be; I sought out for the largest Paper I could get, and mounted a New one upon a scale of one inch and *six* tenths: by which, in meer Love to the Work, I have greatly Enlarged the whole Draught, without any design of making the least Addition to my Subscribers charge, tho' it was a very considerable one to both my Labour and Expence. This Scale which in Maps is usually set out in one small Line or Portion, is in my Chart, inscribed thro' the *whole* extent of all it's four Sides; and it is every where divided into Miles, Half-miles, and Quarters; according to which I have Carefully disposed of every thing even to a Furlong, or less in many Places; not by meer Guess, but by the Actual division of the Compasses, according to the best of my judgment made upon the Spot.

The
Scale.

In Conformity to this Scale, having first contriv'd where to pitch my *Center*, so as to allow free Room for the delineation of my Whole Design; I circumscribed it with *sixteen* *Circles* round the *Center*.

Mile-
Circles
round
the Cen-
ter.

Circles, for the sixteen Miles that I propos'd to finish; and the *Sixteenth*, that is my Outmost mile-circle, I have Rul'd with Treble Lines, to distinguish it from the Rest; (except in the *Northern* Parts; where it being all Sea, and not running to that Extent, the *Twelfth* mile-circle is so noted instead of it) and I have upon these Divided out the Circle of the Globe; distinguishing each Tenth Degree with it's proper figure, and subdivided each of them into their Respective degrees. The towns, villages, houses, and whatever marks or Signs I thought proper to take Notice of, many of which, though of Inferior note, are of great Use to me; I have situated them all exactly by the Compass, with which I took their Bearings from the Tower of our Cathedral.

The
Compass
set to the
Magne-
tick Pole.

This Compass I set not to the True but to the *Magnetick* Pole; which, according to the Best Information I could get, was then at *London*, our Meridian, fourteen Degrees and a half *West*. How Exact my information was I won't pretend to say; but presuming it was near the Truth, I have laid my *North* Pole so much *Declining* towards the *West*, and of course all my Bearings Conformable to it. I must leave it to the Curious to judge and determine, whether I have done right or wrong in drawing by the Magnetick, instead of the True Pole of the World. It is to me an Indifferent matter, whether I direct my Reader to find the True by the Magnetick, or the Magnetick by the True Pole; so long as I inform him of the Difference they bear from one another in the Chart. Yet, for his farther Satisfaction, I will trouble him in a few Words with such Motives as I had for my so doing. I had made Four or Five Copies before that which I had proposed to Publish, but never Finished any of them; for as fast as I gained new Lights in my Journeys, I saw they were not free enough of Mistakes to deserve the *last* Hand. And one Grand *Error* I found run-
ning

ning thro' them all: as they in my apprehension, laid the whole country down too Low upon the Line, which in Nature gradually *Projects* out more and more northerly, from the *W.* to the *E.* quite up to the *Foreland*. This is plain to all that sail on our *North*, and was always observed by myself within land; for as I cross'd the country Direct from Sea to Sea, the *North* and *South* were never just before and behind me, but oblique on the Left and the Right. The Reason of this Error then I could guess to be no other, than that the setting the Axis of my Poles directly *Perpendicular* instead of declining it to the left, threw the Country down too much to the *East* and the *South*: Wherefore, to Rectify this, I got made for the purpose a large and very correct *Azimuth* Compass, inscribed with every thing Suitable to my Design, and fitted it with a *Theodolite*; in such a manner, that the Focus of the Glass, at whatever Object it stood, gave the exact Bearing of it, even to the most minute part of a degree, by a Moveable *Index*, which mark'd it upon the Circle of Degrees; to which the Outline Circle of the Chart was exactly Correspondent. And having obtain'd leave to erect a Scaffold upon the Top of the great Tower of our Cathedral, I plac'd the Instrument in it's Centre. Here I had so *Extensive* a View of almost the whole Country, that but very few places within my Circle escaped my Sight; and these few that did, such as *Dovor*, *Folkstone*, *Hythe*, *Ashford*, *Charing* and *Feversham*, which lye below the Great Hills, were all reducible to a true Situation by well known *Marks* in my sight, that either directed me to place them without any danger of great Error, or gave me proper places for the taking of *fresh* Bearings by the Instrument. And I had the satisfaction, as I set my Compass to the *Magnetick* Pole as above, to find all the Bearings so raised towards the *East* and Depressed towards the *West*,

that it perfectly answer'd the Image of the country, as it lay in my Conception. And this is the Copy that I had Finished so nearly as to intend it for the Publick. But when, for reasons above given, I thought even This not Compleat enough to please myself, and therefore not fit to present to my Subscribers; and found also that some Gentlemen, for whose opinion I have a great Deference, thought it was better to follow the General Custom of Maps, and set my Poles *direct* in the Zenith and Nadir; In my New and *Last* Copy, I alter'd my scheme so far as to make my *Cardinal* Lines exactly *Perpendicular* and *Horizontal*; but yet I kept the Situation of all things to the *Bearings* of the Magnetick Pole; and this still elevates the Country to a good degree of the *Northerly Projection*, and thereby keeps me clear of the main and Original fault which I intended to Rectify. In fine, all that my Reader has to do in finding the Bearing of any place according to the true Pole, is to allow *fourteen degrees and a half more*, i. e. one Point of the Compass and near a quarter, on the Right hand from the *North* to the *South*; and to the Left, from *South* to *North*; and then he will be satisfied. So that although I should have been mistaken about the proper Declination of the Magnetick Pole from the True (and I have been since inform'd that it has been at different times at $20^{\circ} 10'$. $13^{\circ} 50'$. and once but 13° .) yet the allowance here mentioned reduces all to the True Pole of the World.

These things being In General Præmised; let my Courteous Reader first observe how Gracefully two *Islands* lay; One on each side, to our *Continent*; for so, in Respect to them, I shall call our Main-land through this whole Discourse.

Shepey I.

The Isle of *Shepey*, of which I shall have but little to say, Fills the Left hand, or *N. W.* Corner of the Chart. This, as it is out of the Tour of my Business, had no more concern

cern

cern in my *Proposals*, than to shew it's " Inner Verge opposite to the Shore of our Continent from *Milton* to *Sea-Salter*; which is over against *Shelness* it's Exterior Point." Yet was I loath to leave this corner so Naked, and so unlike the other, which I was engaged to finish. Wherefore instead of taking only the Outline of the Island, as I proposed at first; that I might be as satisfactory as I could both to myself and my Subscribers, I took a resolution of making it look a little something like itself. Upon this Design I spent at one time two days in *Sailing round* it, that I might set off it's Coasts; and three or four more I bestowed at other different times, as I could find Opportunity and Leisure from business that I had in convenient parts on our side; when I rode over So much of the Island, as might give me a good General notion of it's Make and Extent. And this was the Easier done, as by far the greatest part of it is Marsh-land, which requires but little Description. I have therefore shown the Form and Make of the Island in a rough, plain, and intelligible, tho' not in so finished a manner as in the profess'd Work; however Distinct enough to make the Extent and number of it's main Vallies sufficiently plain.

This Island consists principally of Low Lands or Marshes, divided from the Continent by the *East* and *West-Scale*, and from one another by their Fleets or Running Waters; and these also parcel out the Uplands into Three little Islands: of which the *Eastern* in particular, is called the *Isle of Hearty*. The Outermost Point of this Lobe of *Shepey* is call'd *Shellness*, it being cover'd with an Immense Quantity of principally Muscle and Cockle Shells, which are thrown up from the Adjacent Beds in the Sea; and covering the ground, make a bright bank of white Shells, called the *Ripe*, that extends itself near two miles from the *Ness* towards *Leydown*. The Rest of the Island to the *North* is

boun-

The
Swale.Rock
Oysters.

bounded by what is properly the *Mouth* of the River *Thames*, viz. all the coast that is opposite to the *Essex* shore, from the Lands end at *Worden* up to *Sheerness*. The *Swale*, which is the Inland Arm of the Sea between the Island and our Continent, is famous for it's large delicious Rock (from their principal Beds called *Feversham* and *Milton*) Oysters; with which a Great Traffick used to be drove, particularly by the *Dutch*, till the Hard Winter in 1739, killed them and Destroyed their beds; which having had the misfortune of two succeeding unfavourable winters, it will be some Years before the Fishery can be restored to it's former plenty.

But let us now cross over to the other Corner of our Chart; where *THANET* will entertain us with a perfect and finished Model of a Beautiful Island, and engage our Longer Stay.

THE ISLE of *THANET*.

Marshes
or Levels.Portus
Sandvi-
censis.

This lyes to the *N. E.* of *Canterbury*; and, contrary to the Nature of *Shepey*, consists principally of Uplands; for the main body of the Marshes that Surround it, are on the Outside of the rivers, that contain the Inland Parts from Sea to Sea. As for these *Low-lands* or *Levels* as they are called; they were in the Antient state of the Country all Sea, and together made up the *Portus Sandvicensis* or Inland Passage, thro' which the Ships Sailed to and from *London*: They enter'd it on the *East* through *Sandwich Bay*, and went out of it at the *Yenlade* or *North Mouth* at *Reculver*. These two Seas I apprehend were Distinct, and kept their Tides So from one another; the one flowing from the *South* and the other from the *North* side of the *Cantium* or *Foreland*, and met each other at the low Point or Tongue of the High-lands under *Sarr*; from whence they Ebb'd back again each to their own Sea. The Waters of this Noble Haven, which were

were in the narrowest place about one and a half, in the wider about two, and at the widest about four Miles over, retired by Degrees so far; that in venerable Bede's time, being reduced to three furlongs width at the Ferry at *Sarr*, they were then called the *Wantsum* or Deficient Water. *Wantsum.* But since the Channel of the *Wantsum* has been quite evacuated (and it is still to be plainly trac'd dry thro' almost the whole Level) the *Nethergong* Stream on the one hand, which in the antient state of the Country enter'd the *Portus Interior* at *Chifflet-Marsh* side, has fallen down thro' the marshes into the *North-Sea*, about a mile and half *E.* of *Reculver*; and the River *Stour* on the other, which enter'd the *Exterior* under *Stourmouth*, has made it's way down into the *Sea* at *Sandwich-bay*; and these two streams Losing their own names, were called the *Wantsum*; which I now distinguish from the two Rivers that belonged to it, into the *Stour-Wantsum*, and the *Nethergong-Wantsum*. Now the Distance between these two streams, which is something better than a mile, leaves the land as yet a *Peninsula*; but an *Artificial* *Mile-stream.* Cut called the *Mile-stream*, which was made for the benefit of Sewing the *Nethergong* into the *Stour*; over which is a *Bridge* in the road to *Sarr*; which goes almost strait, sometimes near, sometimes across the dry Channel of the old *Wantsum*: This quite Incloses *Thanet*. So that the *Island*, which formerly was cut off from us by the *Entire Portus Sandvicensis*, and was then all *High-lands*, is now made so only by the *Stour-Wantsum* on the *S.* the *Mile-stream* on the *S. W.* and the *Nethergong-Wantsum* on the *W.* the Rest of the *Island* looks to the *North* and the *East Seas* as heretofore.

The Shape of this *Island* is a long *Oval*, not very irregular. The Point at *Sarr* where the two Seas met at *S. W.* is it's *Acute*, and the *Northern* and *Eastern* parts are it's

Obtuse extremity ; in the middle of which the North Foreland runs out a little irregular into the Sea. It is between nine and ten miles upon the line in length from Sarr to the Foreland ; and in the widest place, *viz.* from Fairness (it's Northermost Cape) to the Cliffs-end under Pegwell, on the *S.* looking to the Bay, it is about five over ; from both which places it gradually falls off on each side to it's point at Sarr.

It's Make.

The Construction or Make of the Land is Plain ; and tho' the Design is *Simple*, i. e. but little compounded, yet is it so Perfect a model of a Grand Work, that you have nothing to do, but in your imagination to conceive, longer and deeper Vallies, Rivers instead of brooks, Lakes for ponds, and Mountains for hills, with the intermixture of some such Lesser members as These, all over and over again adjusted in Situation to one another, in Distinct Lobes, Divisions and Regions ; and then you will easily apprehend the Formation of the whole Island of *Britain*, or of any other Country, or indeed of the whole Terraqueous Globe. Nor is at all Difficult to understand the Method Nature uses in thus forming the *Surface* of the Earth, if we examine it, as delineated in the Chart, with any degree of Attention.

A General Plan.

Vallies.

Observe but the *Rise*, the *Course* and the *Insertion* of the Vallies ; and then every General Division, or Region ; every Lobe or District ; every Lobule or minutest Section ; and every Communication of them all one with another, will most plainly appear. As for Example — the Dark *Strokes*, that look like so many systems or sets of Animal Veins ; these represent the Vallies, which begin almost imperceptibly, at the top of the Hill, and by their Gradual Descent, contrary to each other, leaving that an Elevated part, forms the Ridge (represented by the Line of Light) that runs longitudinally and gradually ascending thro' this whole Island, from the Tong or low point of land at the Marshes under *Sarr*

Hills.

and

and St. *Nicholas*, up to it's highest Ground, or strongest *Lights* at *Sewell-hill* near the Foreland. In like sort the Lesser or Shallower vallies are represented by the Lighter Strokes, and the Lesser Hills by the Lesser Lights, even to the shortest and shallowest Vallies, or to the least Eminence between them; whereby the exact Distinction, yet Systematical congruity of them all, are very obvious to the observant Eye.

These Vallies on the *S.* and the *W.* where they respect the Marshes, are but Short; but where they descend to the open Sea on the *N.* they are much Longer: and they are so disposed as to divide the Country into two General Philosophical parts, *viz.* the *Northern* and the *Southern*, whose Bounds are laid out by the main Ridge of the hills, which is call'd *Dunstreet*, that is continued thro' the whole Island: But the Land is distinguished into it's Lesser parcels by it's particular Vallies, which I shall now describe. These are all Dry Vallies; There being No waters, that arise in any of them above one quarter of a mile from their Mouths.

The First of these, *i. e.* of the NORTHERN REGION, derives it's Origine imperceptibly from many Capillary Roots or Extremities that arise about *Manston Green*; which turning downwards to the *N.* and forming very quickly one main Single Duct, which receives other Lesser Lateral Ducts on each side, it falls off from the Hill *N. W.* in a pretty Strait and gentle descent by *Queeks*, (about six miles) into the eastern tail of the Marshes by *Brooks-end* under Birchington.

I.
Northern Vallies.

The Second is the Margate Valley. It is Compounded of two considerable Branches that end in the Harbour.

Brooks-End.

II.
Margate.

The First of these is Treble; being composed of the *Woodchurch*, the *Chalksole*, and the *Nash-court* Branches; which at their Originals upon the Hills spread themselves the Compass of three miles between Woodchurch and Nurland.

I.

The

Woodchurch.

The Woodchurch Branch, which is Double, comes from the Laterals of the First general valley, above *Chefman's* and *Poucies*, with which they gently Inosculate; and after their Descent by Woodchurch and Vincent, unite into one Trunk and go thro' the West-Marsh between the Glass-house and Margate into the Harbour.

2. The next, which is also Double, comes from *Manston-Court* and *Sprating-street*, and descends; the first branch by Chalksole, the other by Lydden, till they come into one at Dane Chappel; and this passes on into the Woodchurch-Branch at *Twenties*.

3. The Third is the *Salm'ston-Branch*; This is a Single Valley, and comes from between Hains and Rumfield's Gap; and spreading the space of about a mile at it's Original, it runs down by Nash-Court and Salm'ston into the *First* at the West-Marsh.

2. The Second Branch of this *Margate Valley* possesses at it's original, all the Space which is two miles and a quarter, between Northwood, and Sewell-hill; It has five Branches.

1. The First begins at *Norwood* and Rumfield's Gap, and passing down between Updown and Sacket's Hill, goes on the East-side of Margate Church thro' the Town into the Bay, very near the Mouth of the first General Valley.

2. The Second arises at Gethers and Brompton about *Kitchin-bill*; the several Capillaries of which uniting at *Dane-Court* under St. Peter's-street, make a Branch that comes into the other between *Sacket's-hill* and *Drapers*.

The Third runs down from between St. Peter's-street and Riding-street in several Capillaries that make two short Ramifications; which joyn and go into the *Second* under Sacket's-Hill.

The

The Fourth and Fifth come from *Riding-street* and *Sewell-hill*, and enter the first between *Draper's* and the end of *Margate Town*.

4, 5.

These are the Principal vallies that divide the *Northern*, which is the Largest Region of the Island, from the Southern; and Subdivide it into all it's parts: whose Capillary extremities running *N. W.* or North one way (contrary to those of the Opposite region, which run *S. W.* or *S.* the other way) Conspire with them to form the Ridge from *Sarr* to *Sewell-hill*, which is the Actual General *Boundary* of them Both. But besides these already described, there are also contained in this Northern Region, three other Lesser setts, whereof two are *Intermediate* and one *Extream*, which fill up all Vacancies, and compleat the whole design of this Northern Region.

I.
Intermediate
Setts of Vallies.

The first Suit of these is made up of Six short Vallies that occupy the Space of about two Miles and a half between *St. Nicholas-Marsh* and *Monkton-mill*. They all descend from the ridge of the Hill in collateral directions into the Marshes, between *Chamber's-wall* and *Brooks-end Valley*.

I.

The second is composed of eight or nine Vallies somewhat longer than the former, that take up all the Space, between the *Laterals* of the *Brooks-end*, and the *Margate Valley*. They are of various lengths; the longest of them are Three in the middle of 'em, that come from between *Queeks* and *Woodchurch*: They all descend to the Cliffs for the space of three miles between the end of them under *Birchington* and their Opening at *Margate Bay*.

2.

The other, which is the *Extreme* set of Vallies, is a numerous Collection of about *twenty* short ones, that Edge the Cliffs on each side of the *Foreland*. On the *Western* side are *Five* that lye between *Margate* and *Fairness*, which is the outmost Northern Cape; and there are *Eight* more

II.
Extreme Vallies.

N. Foreland.

between Fairness and *Eastness* at the Foreland, which is the most Eastern Promontory. Of those on the S. of the Foreland *Two* are more Considerable than the Rest, *viz.* at Broadstow and Dumpton: These parcel out the Space between the *Foreland* and the Large *Ramsgate* Valley, into two Intermediate Little Corners; which are fill'd up, each of them with three or four very slight Vallies. These are all of them in themselves so Insignificant, that were it not proper to show you, that Nature leaves no part of her Design *Unfinished*, they would not deserve our notice.

II.
The
SOUTHERN
REGION.

As for the SOUTHERN Region; there is but little Occasion now for my being so particular as to trace it's Vallies *Separately*. They all observe the same course of direction with one another from the Hill top down to the Marshes adjoining to Sandwich Bay.

I.
Dunstreet.

The First *Three* between the Turn of the Point at Sarr and the Grove at Rooks are of no Note, and serve only to fill up the Space, and make the ridge of the under-hill between the Marshes and the Eastern Vallies; but the other *Twelve* that possess all the Space of four miles between Monkton Church and the great Chalk Pit above; and from Rooks to the point of Land at Ebbs-Fleet below: These are of Equal extent, and come down from Dunstreet. They are so regularly disposed in Collateral courses, that one Glance of the Eye distinguishes them all.

II.
The Bay.

As for the *Bay*; whose Vallies on this side between Ebbs-Fleet and Ramsgate Peer, going by these hills, extend themselves for the Space of three miles; it has *Four*, pretty much of the same direction with the last Sett, but of a somewhat Larger extent.

I.

The First descends by many Capillaries from the Hill at *Manston-Green* into the Marshes between Ebbs-Fleet and *Cliffs-end*.

The

The Second comes from the Hill, where the *Extremities* of the Brooks-end and Margate Vallies meet, at Hains and *Sprating-street*; and it falls down by little Cliffs-end, to the Edge of the Cliffs; but it does not cut through them down into the Flats or Sands of the Bay. 2.

The Third comes from *Hains* down by Nethercourt, *E.* of the Beacon-hill, unto the Cliffs-edge also at Pegwell. These three are Single Vallies. 3.

The Fourth, and most considerable of all, is a Compound Valley of two miles in length, and in some places a mile and a half wide; it comes from the Hill at the Extremity of the *Nash-Court-Branch* of the Margate Valley, between Hains and Westwood; and runs down between Newlands and White-Hall through Ramsgate Town into the great Opening of the Cliffs at the Pier of the Harbour. 4.

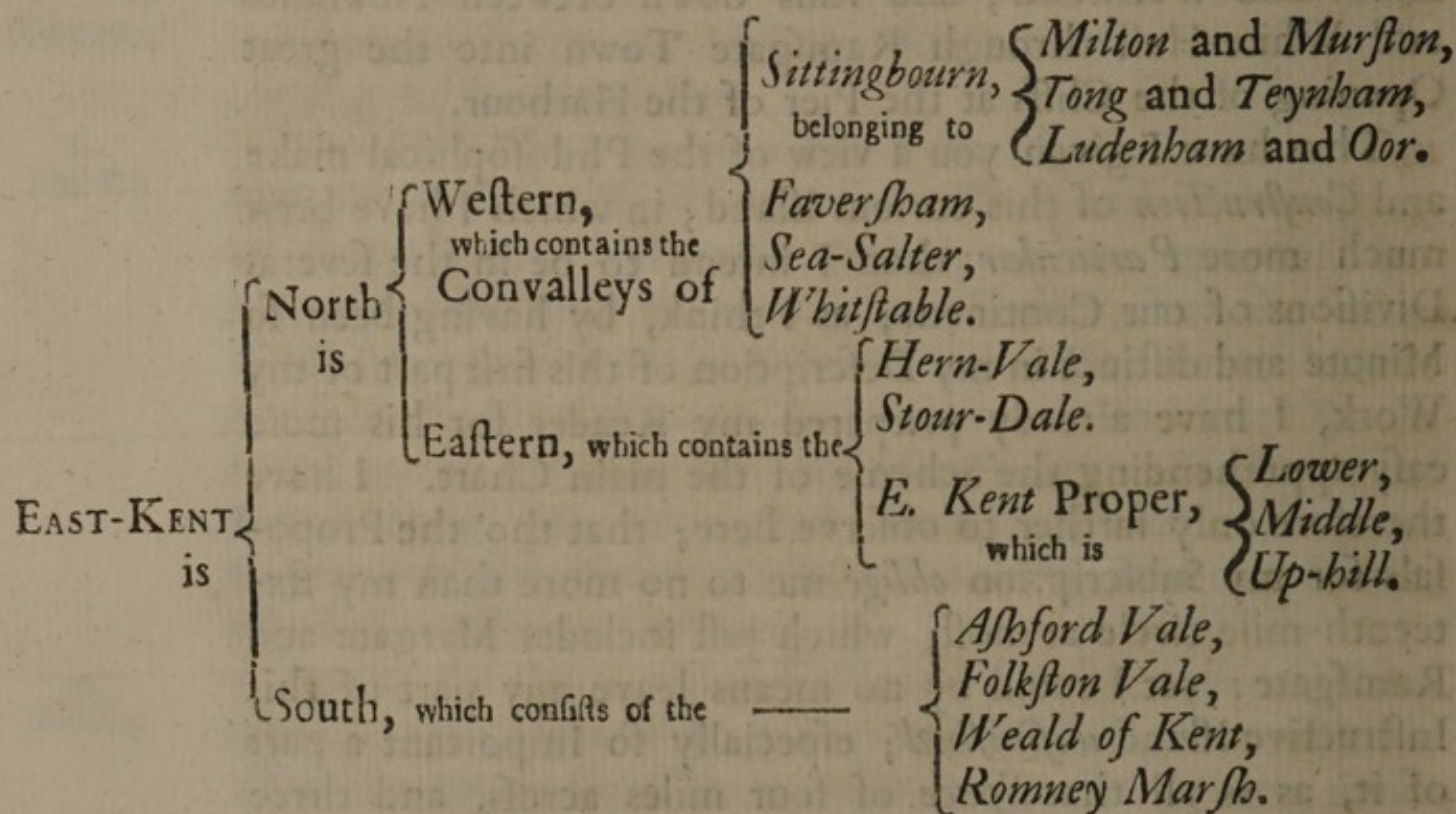
Thus have I given you a view of the Philosophical make and *Construction* of this curious Island; in which I have been much more *Particular* than I intend to be in the several Divisions of our Continent; as I think, by having been so Minute and distinct in my Description of this first part of my Work, I have already præpared my Reader for his more easy apprehending the Scheme of the main Chart. I have therefore only farther to observe here; that tho' the Proposals for my Subscription *oblige* me to no more than my sixteenth-mile circle at most, which just includes Margate and Ramsgate: yet I could by no means leave any part of this Instructive Island *unfinished*; especially so Important a part of it, as is all that *Space* of four miles across, and three deep, that lies between the Exterior Capillaries of the Great Valley before described within my proper Circle, and the Sea. And indeed I am pleased that I could so compleatly finish the whole design of this Island: and this my frequent calls of Business into all it's parts, gave me greater opportunities

tunities of doing, than I should have had in any other part of the Country at the same Distance from my Center.

THE
CONTINENT.
Division.

Thus much for our Two Islands. I shall now pass over into the CONTINENT; whose General Division into it's Regions I shall first give you, and then it's Subdivisions into it's Districts or Parts.

The whole Country is Philosophically divided by a great Ledge of Hills into NORTH and SOUTH *East-Kent*. The Former is all that Tract, that is contained between the Sea on the *N.* and the Top of the Down-Hills on the *S.*: and the Latter, between those Hills on the *N.* and the Opposite Sea on the *S.* They are by their Proper Boundaries subdivided as in the following Scheme.



I.
North-East Kent.

To begin then with NORTH EAST Kent. This is all that Tract that is included between the Sea on the *N.* and the Top of the Down-Hills on the *S.* I shall now more particularly set out it's Bounds.

As

As for the DOWN HILLS, the Common Boundary of the *N.* and *S.* Countries; They are of a long Ledge of Hills that are extended across the Chart nearly *E.* and *W.* They are the *Highest* hills of the whole country. They are all *Chalk*; and indeed are no other than the very Cliffs of the Sea shore, that set off inland about five Miles from *Dovor* and two from *Folkston* under *Caldham*; and stretch themselves all along above the *Folkston* and *Ashford* Vales by *Newington*, *Brabourn*, *Wye*, (where they make a great Opening for the Passage of the River *Stour*) *Eastwell*, *Charing* and *Lenham*: and from thence they run quite out of my Bounds, thro' *Surry* into *Hampshire*, as I have been inform'd. These hills are it's Southern Boundary. The Northern or Maritime is Double; it is made partly by the *Swale* on it's Western Side; which is an Arm of the Sea that extends itself betwixt *Shepey* and our Continent from *Chickney-point* beyond *Milton* and *Iwade* as far as to *Sea Salter* or *Whitstable*, a length of about twelve Miles; and partly by the *Open Sea* on it's Eastern Side as far as to *Reculver*, which is about ten miles more: and here our Continent ends in the Exterior part of the *Portus Sandvicensis*. From this place, if you include the Isle of *Thanet* as part of this Region, tho' not of the Continent; the shore stretches itself out to *Fairness*, which is it's outermost Northern Cape; and then turning towards the *S. E.* it forms it's Eastern Boundary at the *N.* Foreland, which is about eleven miles more. From this it's most *Eastern* Head-land or Promontory, the Coast goes round on the *S.* to *Ramsgate*, and there beginning to form the *Bay*, which is about a mile and a half deep and about seven wide; it goes on by *Deal* (about fifteen miles more) to the *S.* Foreland: Hence, turning to the *S. W.* it proceeds about eight miles farther to *Caldham*; where the Cliffs run inland, as before described, and set off the Down-hills for

Down-hills,
the common
Boundary.

The *Swale*.

the S. Boundary. But if you leave Thanet *out* of the Northern and Eastern boundary, as *not* being of the Continent; then resume the Course at Reculver; cross over the Portus Exterior between three and four miles to Stourmouth; from thence go by the Inner Edge of the Interior Portus to Richborough; then pass on by Deal Castle, and from thence to the Down-hills as before directed. This is the General boundary of N. E. Kent. It's particular Districts are as follow.

It's Division.

N. East Kent may be consider'd under the Division of CITERIOR and ULTERIOR; the Citerior part is all that Country that has the *Swale* or *Arm* of the Sea for it's Northern Verge, and ranges under the Extent of the Chart to the *W.* the Down-hills S. and the Boughton-hills to the East.

Boughton Hills.

The Down-hills, which distermine this Region from the Ashford Vale, turn Northward at Eastwell Park, and descending gently by Modalsh above Godmersham, Shottington, Boffenden, and Rakes-hill, to the Swale at Whitstable, form the Ledge of the *Boughton-hills*, which distinguish this Region on the *E.* from the Stour-Dale and the Hern-Vale. These Ridges are both expressed by the *strong Lines of light*, which pass thro' their whole Course, and from both these hills all the Vallies of this Country arise.

I.

CITERIOR
Region.

The CITERIOR Division of N. E. Kent, to give it it's whole Extent, is all that Country that is girt in between the Hills about Newington *W.* and the Ledge of the Boughton-Hill *E.* which make it one intire District. It's true Western bounds indeed are out of my Chart, except a little part of them that comes down by *Cullum-Hill* to the low point of Land in the Marshes at *Kings-Ferry*. It is divided properly into two CONVALLEYS, *viz.* the *Sittingbourn* and the *Faversham*, by the Ridge of the Hill that falls down from *Doddington* to *Oor* at *Hearty-Ferry*. They have each of them their

's CONVALLEYS.

their Suits of Vallies that appertain to Distinct *Marshes*, as to their common Centers or Sinuses, in this Order.

{	Sittingbourn Convalley has	{	<i>Milton and Murston,</i>
	Marshes		<i>Tong and Teynham,</i>
	that appertain to		<i>Teynham and Oor-Ferry.</i>
{	Faversham to ———	{	<i>Oor-Ferry and Grav'ny,</i>
			<i>Grav'ny and Sea-Salter,</i>
			<i>Sea-Salter and Whitstable.</i>

And here I desire it may be remember'd once for all; that the proper *Origine* of all the Vallies are *Above* at their Respective hills; their *Course* downwards into a common *Duct*; and their *Insertion*, or Mouth of this Duct is *Below* at the Marshes, the Meadows, or the Sea shore: Of these some are *Water-Vallies*, that carry the Rills from their Springs into the Brooks and Rivers; and others are quite *Dry*, being destin'd to the passage and purification of the *Air* only. Some are simple, and of but a short Course; others are much Compounded, and run a great length. The former are readily enough comprehended; and, (as I have already done in the Isle of Thanet,) I shall describe them in the natural way by Collecting their Capillaries and Lateralls into their common Ducts and Trunks: but the Others, particularly those of this Region, that I am now ready to travel over, which are very long and Complex, I apprehend they will be better described and understood by the method of Distribution; wherefore I Begin with these at their Mouths in the Marshes, and dividing them, as I ascend, into their several Ramifications, and lesser Distributions, I Follow them up to their Origine at the Hills. Both these Methods I use freely in different Places as I think best suits the nature of any Group or particular Valley I am describing. If I follow the Order of *Collection*, I descend as the Vallies naturally do from the hills to the common Sinus; if of *Distribution*

bution, (the Easiest way, and what is most Useful in describing the Vessels of the animal Economy) I then take a contrary Course, and attend them from their Sinus up to the hills. By this hint I intend to prevent any notion of Inaccuracy or Confusion that may otherwise perhaps arise in the promiscuous Application of these Terms.

I.
Sittingbourn
Convalley.

The First or *Sittingbourn* Convalley is all that Country that is shut in between the Newington Hills above Bobbing and Key-street on the *W.* and the hill that bounds the Great Newnham and Doddington Vallies on the *E.* The First bounds are a little beyond my sixteen-mile Circle; but the line of *Light* that rises from Oor, and goes on by Rushit, Doddington, and Madams-court to the Down-hills above Lenham, expresses the Ridge of the Latter: It has Three Setts or Groups of Vallies descending into three several Marshes.

I.
Milton Marsh
and Vallies.

The First is the *Sittingbourn* or *Mil'ton* Marsh. This is Inclosed between *Kemsley Downs*, *Mil'ton*, *Sittingbourn*, *Murston* and *Emly-Ferry*; the Particular Vallies of all which are easily traced from their Mouths at the bottom of the Uplands at the Edge of the Marsh, up to *Bobbing*, *Borden*, *Tonstall*, *Bredgar* and *Pistock*; *Golden-Wood*, *Hyfted*, and *Broadoak Forestall*; in their Ascent to the Down-Hills above *Haretsham* and *Hollingbourn*. And these are all distinguished from one another by the Several lines of the *Greater* and *Lesser* lights, which express the Higher or Lower ridges of the Hills that divide them from one another: And this is the Method of my Delineation all over the Chart; which, if you observe, you will be at no loss to understand both the *Course* and the *Distinction* of every Suit and every particular Valley.

2.
Tong.

The Second is the *Tong* Marsh, surrounded by *Emly-Ferry*, *Tong*, *Teynham* and *Coniers-Key*; whose Vallies ascend

ascend partly by Tong and Bapchild, to Milsted, Wormshill, Madams-court and Kimbull-hill; and partly by Frognall to Woodstreet and Kingsdown, and thence both of them up to the Ridge-hill of the Doddington and Newnham Vallies.

The Third is the Ludenham Marsh enclosed within Coniers-Key, Teynham, Stone, Ludenham, Blacketts and Oor-Ferry. The whole Group is composed of several Setts; but the only Considerable one, that extends itself far into the country, is the Teynham Valley, which leaving the Marshes by the Ozier, a little above the Church, ascends between Greenstreet and Knowds to Bumpit: here being divided, and at *Linxsted* Park again subdivided into many Ramifications, it mounts by Kingsdown and *Lodge* to the Ridge of the hill of the Doddington and Newnham Vallies at Rade-Wood, Doddington, *Sbarsted* and Loiterton. From the same place is sent off another Valley by Dason-street and Norton-court, to Loiterton, Rushit and Provender, and up to the Ridge of the same Hill, here belonging to the Newnham Valley. As for the *Rest* of the Vallies, that are Members of this Group that lye more Eastward; They help to form the Hill of the Great Newnham Valley; which bounds this from the Faversham Division, all the way from Provender, quite down by Ludenham into the Marshes under Blackett's and Oor.

The *Waters* of this Country are but very few: here are no Rivers, nor Brooks: the Vallies are all Dry; for none of it's Springs arise above *half a Mile* beyond the Edge of the Marshes. Two of these however are *Navigable*, almost up to their Springs, by small Craft, which are of great Consequence to the Trade of this whole Country: One is the *Creek* that comes from over against Emly-hill up to Milton and Sittingbourn: the other by Fowley Island to Coniers-Key and Frognall. The Vallies of this Division, which

Inosculation. are long and deep, do all of them, as they do every where else, insensibly Inosculate with one another by their Capillary Extremities: but there are none, or at least but very few, which are Openly and very visibly let into one another; at least not so conspicuously Incorporated by whole Groups for a considerable extent together; which is Remarkably done in various parts of the other Regions, as shall be Noted in their proper places.

II.

FEVERSHAM
Marshes.

I.

Faversham
Marsh.

I.

Newnham
Valley.

The Second General Division is the FEVERSHAM Convalley. This is contain'd betwixt the Ridge-hill of the great Newnham and Doddington Vallies on the *W.* and the Ridge of the Boughton-hills on the *E.* both before described. To it pertain *Three*, viz. the Faversham, Sea-Salter and Whitstable Marshes. The *Faversham* Marsh, which lies betwixt Oor and Grav'ny, has two principal Vallies, that run out at length and traverse a great Tract of land; and besides these, it has some others of a Shorter course and of less signification. The *Oor* branch goes out of the Marshes at the Mill, and thence passing between Judd's house and Rushit to *Newnham*; it branches out into *Three* large and deep Vallies; the Exterior of which runs off Slanting under Doddington, by Sindall's bottom and *Ringsted* up to the Down-hills between Lenham and Haretsham. The Subdivisions of it's principal Branches which are dispersed from Newnham and Doddington over all the Country, between the Ridge of the Hill at Madams-court and Water-ditch, (a space of full four miles upon the line,) are not only numerous, but very considerable: The Deepest of all which, and indeed of the whole Country, is that which goes off from Doddington-street under the *E.* side of Whichlin-Green up to the Hills above Lenham.

2.

Ospringe Valley.

The Second is the *Ospringe* Valley, that leaves the Marshes at the Powder-mill between Faversham and Davington, and from

from thence proceeds to Ospringe and Whitehill. Here this great Valley makes it's First Exit: but it is not properly a Branch, only a very long and large *Laterall* Offsett, that does not run, like the rest, the whole course up to the Hills; but after passing Shelvich Church with it's Lesser, and Wilgate-Green with it's Greater duct, it shuts out Shelvich Lees and the Country between that and the Marshes below, from it's District, by a strong Inosculation of it's Lateralls, which it makes with those of the Grav'ny valley, and then terminates upon the Ridge of it's hill.

After the setting off of this great Laterall, the main *Trunk* of the valley proceeding scarce half a mile farther under Kenaway, has a Grand Bifurcation. The *Western* branch of which goes by Sooks, under Throwleigh Park, and there makes a notable Common Sinus, by the Concentration of several both Ramous and Lateral ducts on each side. Of the Latter the Principal ones head up Easterly to *Bell's* and *Clare's* Forestalls; but the Former are Three in number, *viz.* The *Interior*, which marching from under Arnold's to the bottom between *Otterden* and *Hall-place*, sends up it's Divisions to the top of the Down-hills between Water-ditch and Stone-style. The *Middle*, which passes by Sta'sfield-green up close to the other at the *Bowl*; and the *Exterior*, which is divided into two very Compound branches and mounts under Sta'sfield Church up to the same hills; with One of it's Segments by the Parsonage to the Lime-Kilns and Toll above Charing and *Pett*; and with the Other, all thro' Long-beech-Wood, extending it's Capillaries from Stack-wood-head to the Spitt-gate.

The Second main or *Eastern* Branch is Detach'd single from Kenaway, and advances between Throwleigh Church and Lev'nham till it comes to Shortwood. Here again it is divided into Two great vallies, that go on by Snode-street

I.

I.

2.

3.

2.

to the Spitt-gate of Long-beech-wood and Pattock. So that these two main Branches from Kenaway, are, next to the great *Newnham* one, the most Compounded of all the vallies: they are so often split into fresh Portions and Segments, and after very great Elongations are so far expanded at their Originals, that they possess all the Summit of the hill for the space of four miles, from Water-ditch to Pattock: and at this remarkable place are *Inosculation* in a very close manner by all it's Exterior Capillaries, with the Extremities of the great Eastwell Valley of the Ashford Vale.

Inosculation.

The *Remainder* of this Division which I just now left behind me between Shelvich Lees and the Marshes, are a pretty *District* of about four miles long, and two wide, which comprehends all the space between the Faversham, the Nash and the Shelvich vallies. These receive their Complement from the *Preston*, the *Ewell* and the *Good'neston* vallies; which, with some intermediate ones of Lesser note, very regularly Engrave it's whole surface, with five or six systems of gentle vallies, of which the First is by much the longest, and most divided. They all form the Ridge of the Faversham or Ospringe valley on the *W.* and the Grav'ny on the *E.* and come down into the great Faversham Marsh between the Standard or Keys on the Creek and Good'nston. What remains of the Lower parts of the hill that belongs to these Marshes, between Good'nston and Grav'ny, is furnished with several very small Collaterall Offsetts, which are always employ'd in this minute work of forming the Tongues or Low points of Land that distinguish the Mouths of any two vallies from one another: but these need no farther mention.

Sea-Salter.

The next is the *Sea-Salter* Marsh. This is all that Large Level that is contained between the tongue of land below Grav'ny and the point below Sea-Salter Church. It has but one Considerable Valley; and it is that which goes out of the

the Marshes under Grav'ny at *Denham-hill* to *Nash Park*: from hence it proceeds under *Lees-Court* to *Bowing-Gate*, and throws off Three branches that spread themselves on the top of the Down-hill about *Eastwell Park* and *Kings-Wood* above *Wye*. And on each side of the Park it makes a Grand *Inosculation* of the whole Groups of both it's West-
Inosculation
 ern and Eastern capillaries with the Extremities of the *Stour Vale*; as shall be more particularly hereafter described. The *Rest* of the vallies of this *Feversham Division*, coming from the *N.* of *Moldash*, which are *twelve* or *thirteen* in Number, tho' they are very considerable Productions, yet they are all but *Lateralls*; they lye in distinct setts, and in a regular succession descend from the Ridge of the *Boughton Ledge* of hills. They set off from the body of the main Valley; and Four or Five of them go out of the Marsh between *Denham-hill* and the Eastern Point of the Level.

The Fourth and Last is a very short Compound valley, that proceeds from the *Whitstable* Marsh, which lies between the point of *Sea-Salter* and the *Copperas-houses* at *Tankerton*, to the lower part of the Ledge of *Boughton-hill* on the *W.* and of *Swakely Valley* on the *E.* The Ridge at *Tankerton* above this Level is the *Beginning* of the *Boughton ledge* before described, which is the middle Boundary of the Two General Regions of *N. East Kent*.

4.
Whitstable.

Thus have I finished the Citerior Division of *East Kent*, that is wash'd by the *Swale*. I come now to the *Uterior* that looks to the *Open Sea*, and first of

THE HERN-VALE.

This is all that *Maritime Tract* of Land which regards on the *N.* the *Open Sea*; from the *Copperas-houses* above *Whitstable* to *Reculver*. It is a High shore about ten Miles in length. On it's Western side it is six miles wide; but thence as it ex-

II.
 ULTERIOR
 REGION.

I.
 HERN VALE.

tends itself *N. E.* towards Hern-bay, it gradually diminishes to two Miles, and so on to nothing, or to a point at the *Reculvers*. I call it a *Vale*, because it is an entire parcel of the Country, that is served all over it with it's own Waters, independent on either the Waters of the *Nethergong* or the *Stour*; and by the name of it's principal or rather it's only *Village*, I denominate the Vale. It is bounded on the *N.* by the Sea; on the *W.* by the Northern part of the Boughton Hills, as far as to Boffenden; on the *S.* and *S. E.* by the Ridge Hill of the Stour-Dale, going by Boffenden, Blean-Common, Wild-Court, Child's Forestall and Belting to Reculver. It consists of Five Groups of Vallies, which traverse the country from the Hills to the Sea.

It's Vallies.

1.

The First, which is the only very considerable one, is that at *Swakely* or Swalecliff the *Mouth* of the Swale; which is properly formed between this place and the Lands-end of Shepey. This Valley has *Two* large branches; the First goes out of a small Marsh by the Church, and after having sent off a branch between Rayham and Broad-Street to Rake's-Hill above Sea-Salter, (which is a part of the Boughton-Hills;) it proceeds with it's main body between Rayham and Clows, thro' Dane-Stroud, by two or three branches, up to Boughton-hill at *Boffenden*; sending off it's Laterall vallies on each side, for the Formation of the Ridges of both the Stour-dale and the Boughton-hills. It's whole Course is six miles upon the line. The Other Branch leaves the same Marsh Eastward, and by Rotten-Green, goes up to the Ridge of the Stour-dale at *Timber-Hill*; the Vale being here but between two and three miles over.

2.

The Second Group comes out of the Lesser marsh between Studhill and Hampton; and in two small branches disperses itself about a Mile and a half wide, and two Miles long, up to the Ridge of the same hill about *Blean-Gate*.

The

The Third, a little shorter, than the last, belongs to a little Marsh at Hern Bay, and takes up much the same extent in width: it is collected from the Ridge of the same hill about *Child's-Forestall*, a little above the Village of Hern.

3.

The Fourth is a little Vale, still shorter, but about a mile long; it begins at the same ridge at Blacksole, and ends upon the Cliffs: it is a dry Valley.

4.

The Fifth and Last comes into a little Marsh, something more Easterly, at the *Old Harbour*; it descends about a Mile and a half from the same Ridge at *Belting*; but so Obliquely, that at it's Mouth it is not above half a mile from the hill; which it shapes off gradually to a Point at the Reculvers, above the *North mouth* of *Portus Sandvicensis*, which is the Northern boundary of this Vale and of the Continent.

5.

OF THE STOUR DALE.

I come now to the *Main Central Vale*, the Principal Group or Composition of Vallies; the *Master-Vale* of the whole Country; to which all others manifestly conform their Bearings and Constructions. And This I call the *Stour-Dale*, because it is the Seat of the River *Stour*; which, tho' not great, is the only Water of all this Country that is of Consequence enough to be properly called a *River*.

III.
STOURDALE.

The *Extent* of the Stour-Dale, whose Course is *N. W.* is in length very great: for from Reculver on the *N.* and Stourmouth on the *N. E.* to Wye on the *S. W.* it is about nineteen miles upon the line. In *Width* it is very *various*. At the North or *Yenlade* or North mouth across from Reculver to *Stourmouth*, it is but a little above Three miles; from Boughton-Hill across to the Hill above Bridge at Renvill, (in the middle space of which the River runs) it is about Seven. But about the middle of it's Course, from *Old-Wive's-Lees* or Shottington in
the

It's Extent.

Various;

the *W.* it is so *Different*, that it is Fifteen, Eleven and a half; Six and a half; or Five; according as you take it, either in it's Utmost, it's Middle, or in it's Least extent, *i. e.* either as far as Any of it's vallies receive any Branches and Capillaries: which is at Wickham-Bushes above *Lydden-Hill*; or so far only as the Great and Little River vallies are concerned, which is at the Ridge of the Hill *E.* above the *Barham* Nailbourn; --- or as you consider it in a more limited sense for what belongs only to the *main* River; which in it's greater latitude is terminated at the Chequer at *Stone-Street*; and in it's lesser or Narrowest of all, is concluded at the Ridge of the Hill between the *Bockholt-Woods*, and the *Nailbourn* valley; for at this place the width only of the *Immediate* or Proper valley of the River Stour is concern'd; and it is here but about Five miles over as abovesaid: But all these will be better understood, when it's Particular boundaries shall be more fully described.

Boundaries.

The General *Boundaries* of this Dale are; on the *N. W.* the Ridge of the Hill that separates it from the *Hern-Vale*, all along from *Reculver* to *Bossenden* above *Boughton*, as before described; and from thence it is terminated on the *W.* by the *Boughton Hills*; whose Ledge is farther Extended to the *S.* by *Shottington* and *Moldash*, quite up to *Eastwell-Park*, as before also Described. It's Eastern Limits set off, first on the *N.* from *Stour-mouth* to *Wingham*; and thence throws out first, it's *Exterior* Branch as a *Process* or Elbow athwart the country Eastward up to *Wod'nsborough*; but from *Wingham*, the *Interior* keeps on its *N. W.* Course by *Add'sham Downs*, *E.* above the Stream of the Little Stour to *Bridge-Hill*. There it receives another Branch or *Process* from *Barham* and *Lydden* on the *E.* above which the Ridge goes on long-ways over *Barham Downs*; and there, sending off it's Extreme, Dry Branch by *Broom* to *Lydden-hills*,

it turns short to the *S.* and goes by Breach Downs all along the Ridge of the High Hills above Elham and Liminge up to the Down Hills at *Tatter-Lees*. But to begin at the Mouth of the Dale.

The whole *Mouth* of this Dale, which opens itself between *Reculver* and *Stour-mouth*, contains indeed some Other Water-Vallies besides those of the Stour, which are Independent on it. Of these some are of no note; but one of them call'd the Nethergong, which goes thro' this Vale into the Sea, is something Considerable; but as these all of them are contained within the Elevation of the same hill, that Separates this Country from the Hern Vale, I make them all appertain to this Stour-Dale. As for the *Southern* bounds of the Stour-Dale, which is Girt in between Eastwell Park and the Wye Downs at it's Original, and thence proceeds by the Course of the Down-hills to Tatter-Lees, it must be remarked, that there is a great Deep *Chasm* or opening between the Park and Cold Harbour, on the *W.* and the *E.* of Wye, through which the River passes out of the Ashford Vale. And here it is that the main Central Valley of the whole Group *Ends*, unless you would reckon the Ashford Vale as a part of, or rather an Appendix to it, of which I shall say more anon.

To begin then with the Particular Divisions of this Region.

The *Reculver* Division is a small parcel of land, on the edge of the marshes, about three miles wide from Reculver to Chistlet; and from Reculver, by the ridge of the Hill that bounds it from the Hern Vale, to Hern Windwill, it is about four Long. This is properly speaking, not a part of the Stour-dale, but of the *Portus Sandvicensis*; and may if you please be considered as a District by itself, contain'd as abovesaid within the same hill. It has *Five* or *Six* Vallies

It's Extent

Reculver

that carry small single Waters of a very short Course; the Largest of which by much is that which comes about three miles down from *Hau* under Ridgeway into Chistlet Marshes at Boykin-gate: from whence turning under the Western Edge of the Marsh, it receives all the Rest in it's Course of about two miles and a half more, and sinks into the Sea under Reculver thro' the Sluice.

II.

STOUR DALE.
A Group of three
Grand Vallies.

But between this place, in the *S. W.* Margin of the Marshes, and Stour-mouth, begins the True and Grand Division of the STOUR-DALE, by an August Group of Three Large Vallies which carry three Different Waters, viz. the *Nethergong*, the *Great Stour*, and the *Little River* or *Bourn*.

I.

Nethergong.

The First of these, the *Nethergong*, is a large Compound stream, that Drains all the great *North*, and some part of the *South Blean* Woods. It is in length from Chistlet Marsh, all thro' it's principal Vallies up to Boughton-hill, between eleven and twelve miles upon the line. It branches out between Hode Church and the Tile-Kiln Common, to the width of about three miles northerly; and this is it's widest part; but after that it goes on in a Single duct, with short Lateralls on each side, up to the Boughton Hills: all the way forming the Ledge of the Hill that parts it's Vallies from those of the *Hern Vale* and the *Feversham Division*. But on the *S.* it has no branches, only many short Lateralls, perhaps half a Mile long, that make the Ridge, which distinguishes this from the Centrall Valley of the Stour; beginning from the Low point of land at *Sarr-wall end*; and thence Ascending by *Up-street*, *West-beer-butts*, *Cold Harbour*, *Hode*, *Hockety-hill*, and so under *Bossenden* up to Boughton hill above *Dun-kirk* in a Collateral course with the Channell of the Stour.

2.

The *Stour*:
Processes of the
Stour-Dale.

Now the Stour-Dale, if you take it in it's whole extent, makes a Region of a very Irregular figure Eastward, because two branches of it's Lesser River make a cross *Excursion* in-

to the Country; one at *Wingham*, the other under *Barham* Down; but if you take the Main Centrall Vale in which the Stour runs with it's Immediate apparatus without these Elongations or Proceffes for the *Proper* Stour-dale, it is of a much less Extent in it's width, and of a more Regular form. In the Antient State of the country, the *Stour* came into the Sea or *Portus Sandvicensis*, some-where betwixt Chistlet and Stour-mouth; and it was separated on one side from the Nethergong; and on the other from the Little-Stour by the Two *low points* of land that lye under Up-street and Grove, already mention'd. So that all that is contained between the Ridges of the two Hills that come from these two points, quite thro' their Progress up to their main Hills, is the *Proper* Stour-Dale. On the *N. W.* and the *N.* these Hills have been already described, *viz.* from Chistlet up to the Boughton hills, as it's boundaries from the Nethergong; and from the Boughton hills to Eastwell-Park as it's boundary from the Feversham Division of the Citerior Region of the Country; so that on the West side of the Stour, I have now nothing more to do, than to take notice of two or three Remarkable Anastomoses or INOSCULATIONS: One is in the *Reculver* Division, another in the Stour-Dale at *Shottington*, and the last and Greatest of all is that of the *whole* Dale with the *Ashford* Vale.

It must be observed, that it is the method of Nature to *Inosculate* all it's Capillary or Extreme vessels by Intermixing or Indenting them very artificially with one another every where at their rise on the Hills; insomuch that at a little distance from their originals, without very close and repeated Observations you can scarce tell which belongs to which; and upon the very Spot it is so *Insensibly* done, that you can't perceive where the several Capillaries begin and depart from one another; for from the Greater Ledges of the hills

Extent.

Inosculation
their Nature.

hills that divide the Regions from one another, they fall off on one side; and from the lesser or intermediate Ridges which distinguish their Divisions, they recede on both sides, so imperceptibly, that it looks all a perfect *Plain*. And This is an Artifice, that tho' I have a thorough notion of it, yet I cannot Express it in the Chart any thing near to Nature. But besides this *Universal* Insensible Inosculation of the extreme capillaries; There are in many places of the Country very remarkable Inosculations of *whole Groups* of vallies into one another, some less, some greater, some very Grand; whereby all the Regions of the whole country are deeply laid into one another, and Communicate their *Atmospheres* from Sea to Sea. This might be the Subject of a very curious Discourse, and make a considerable part of the *Natural History* of this Country, according to my Plan. But leaving all Philosophical enquiries, into the manner of the *Refinement* and *Distribution* of the Air all over this our Surface; I must confine myself, as briefly as possible, to the Description of it's *Apparatus* only.

1.
Of
Hern and Hau.

The First Inosculation then is of the Reculver Division with the Hern Vale, by one of each of their Branches running into one another, not only insensibly by their Capillary extremities, but by their two whole Groups uniting at *Hern and Hau*; where they leave a great *Concavity* or Hollow between the Windmill and Child's-Forestall on each side of *Hern-Street*.

5.
Shottington.

The Second is a much Larger at *Shottington* in the Stour Dale. Here a large *Group* from Chilham is Inosculated deep; one Suit on each side of *Old-Wive's-Lees*, with three or four branches of the Boughton-Vallies, that go down from thence into their common duct by *Lees-Court*: which, besides it's Natural use, has a very pretty Effect, as it leaves all the space of about two miles between the Boughton hills
above

above Sham'sford and Shottington Mill, a great deal *lower* than the General hills ; yet *elevated* enough at the top of the Lees, to show the Summit of a pleasant Hill crown'd with a handsome *Grove* of Beech Trees, that presents itself agreeably to your view for many miles, on each side of the Boughton-hills, where-ever you are.

The Third, which is Opposite to this on the other side of the River, is of the *Sham'sford* Valley, that comes under *Swerdling*-down into the Meadows by the Bridge ; whose Extremities arising between Nackington Church and the Chequer at Stone-street, thro' the space of about two miles, are very *Sensibly* Inosculated with the great Interior Valley of Bridge-street, all about Lower Hard's ; and more *Insensibly*, with a Branch of the Canterbury collection which goes off by Morton into the Meadows at Wincheap.

Sham'sford.

The Fourth and Last Inoscultation is that Grand CHASM or Opening for the Passage of the River Stour ; where the Vallies of the Ashford Vale and the Stour-dale, are laid so close and deep into one another, between the high hills of Eastwell Park and Wye Downs, as to appear to Common observation but One and the same Country. But as the state of the place more nicely examin'd will show that this Great Hollow has at *Wye* Two *Different* Setts of Vallies ; that Those on the *S.* only are *Water*-vallies, which contribute their Streams to the Formation of the Common Bed of the River in the Ashford Vale, in which it is compleatly Generated or *Form'd* ; that by what time the River comes to *Wye*, it is thence-forward little more than one main Channel for it's Conveyance to the Sea ; that on the *N.* the vallies are all *Dry*, and run in another Direction from the Southern ones ; that this great Chasm is here Intersected by a very gentle *Rise* or Elevation of the ridge of a Low hill that goes athwart from Boughton-Ayloph to the Hill above Cold Harbour ; and that from

CHASM at Wye.

Distinction of the
Stour-dale and
Ashford-vale.

This the Vallies of each Region insensibly descend from one another and form it's Ridge; you will then be at no loss here to perceive both the *Grand* Incorporation of the two *whole* Regions of the Stour-dale and the Ashford-vale; and their particular or more Insensible Inosculation also at Wye: for you will easily be satisfied that the whole Apparatus of them both is so Independent on one another, that in true Philosophy they must needs be deem'd *Distinct* Regions.

So much for the Northern and Western boundaries of the Centrall vale of the River Stour; we must return for it's Southern and Eastern Limits to the Marshes under *Grove*.

Eastern Bounds.

The Ridge of the Hill, which is made by the Lateralls of the Great and the Little Stour, runs from the Low point of land at this place along by Littlebourn Church to Renvill above Bridge; and so far it bounds the two Rivers: and here it is that the Little-Stour makes an Elbow or *Process* inwards to the *E.* thro' the Nailbourn-Valley here-after to be described. But the main Ridge proceeding from Renvill to the *South*, these bounds are *continued* by Upper Hard'ss, and Stelling-minis to the Down-hills beyond Limridge Green: and here is another remarkable *Inosculation* of the end of this Valley with the Stouting branch of the Ashford-Vale. These are the Eastern limits of, what may properly in the strictest Sense be called the Stour-dale or the *Centrall* valley of the whole Dale, *i. e.* of all the Vallies that any way concern the Stour; and these run the whole length of the Dale. As to it's width, This Dale at it's Mouth in the Marshes is very *Narrow*, not much above one mile over; but the farther it goes to the *S.* the wider it extends itself; for, after throwing off one single strait long Valley which carries a little Water down from Fish-pool-bottom into Stodmarsh Marshes, (which comes thither strait from it's Inosculation with the Exterior Branch of the *Swerdling*, and the Interior of the
Bridge

Bridge-Vallies, between Elmsted and Stone-street;) the River trending still to the *S. W.* dilates itself into a large Sinus that contains Three Grand Groups, which may be call'd the *Canterbury*, the *Swerdling*, and the *Wye* Convallies. The First of these is what lies on the *N.* and is contain'd between Stodmarsh, Mote, Nackington, Heppington, and Shalm'sford, on the *East*; the Southern bounds of which ascend from the low point of land in the Meadows near Sham'sford-Bridge, along Chartham and Swerdling-downs to *Heppington* above *Street end*; and it's Eastern is the Ridge of the Bridge-valley Hill, from Heppington to the Mote; it's Northern is very short from the Mote to the point of the Old Park, in the Meadows, a little *N. E.* of Canterbury. It contains within it's District, besides many little lateral vallies that concern the point about Sham'sford, *Four* Larger Vallies that come from it's Southern and from part of it's Eastern bounds, down into the Meadows between Chartham and Canterbury; it has also several other shorter ones that lie between that and it's Northern bounds. It's whole Extent is in length about four, and in width about two miles at a medium.

The Second or middle Group has first an Inland *Process* that runs from Sham'sford-bridge under Chartham and Swerdling-downs, up to the Bridge-valley between Heppington, Street-end, and Lower Hard's Church; with which, as before mention'd, it is strongly Inosculated all over it's Ridge from the Chequer at Stone-street to Nackington. The Vallies of this District lie in *Two* Divisions; One of which fills up all the space of the Duct of the Process from Swerdling to Shalm'sford-Bridge; and the Other comes into the common Meadows of the River or Centrall Valley between the Bridge and *Jullaber's* Tomb. They have each of them one Large compound, and several Lesser single Vallies that come down from the hills thro' the Bockholt and Denge Woods

Three Grand
Groups
of
Canterbury.

Woods into their Respective Sinuses on each side of *Mysthole*. But the Principal of these comes a great length from it's Outmost boundaries above Brabourn; a Large compound valley from South-hill, Hastingleigh, Elmsted, Ashenfeild Hoth, Waltham, Sole-street, Bockolt, Wadnall, and Petham, into the Procefs at *Swerdling* Farm, under the Downs. Through this Valley, as far as from Petham, and sometimes as high as Dean in Elmsted flows, tho' very seldom, a small *Nailbourn*, that descends into the River thro' the Sinus of the Procefs under Sham'sford.

Petham
Nailbourn.

The Third Group belongs entirely to the Centrall Vale of the Stour. The First Three or Four of it's Vallies are of less extent, and of no great note, did not they entirely form the Ridge of that Gentle hill on this side at *Wye*, that separates the Dale from the Inner branch of the Ashford Vale, from *Wye*-bridge up to the Foot of the Down-hill at Cold Harbour; and they come into the Meadows between *Wye*-Bridge and *Trimworth*.

Wye.

But the next is a Large compound Valley, that falls from the Down-hills at *Brown's* Corner; heads up to the Interior Branch of the Petham Valley between that and Ashenfeild Hoth, and goes down in *Three* large deep Branches crown'd with high pleasant Down-hills, by Fanscomb Beech, Hastingly-Comb, Pett-street, Crundall and Eggarton, into the Meadows of the Centrall valley at *Godmersham*.

The Last of this Group comes from Sole-street and Drugsted down by *Estuart*, and forms the point of *Jullaber's*-hill; which is the Place where the high Down-hills, (whose roots descend to the banks of the River) begin to *Divaricate* on each side, and retiring Wider from each other the farther they go to the *S.* form the Great opening or Chasm, thro' which it passes so Magnificently out of the Ashford Vale at *Wye*. Of This I shall only farther observe, that
tho'

tho' these hills here are the real Boundaries of the Stour-dale proper, yet the *Eastern* Ledge of them may, and are to be, considered as part of the *Uphill-East-Kent*; and I shall accordingly take fresh notice of them when I come into that Country.

I have now gone thro' the First General Division of the Stour-dale, that regards the main River only; I proceed now to it's Second or more *Extended* Region, which contains within it's bosom the *Little-Stour* also, with it's *Nailbourn*.

This little River, call'd the BOURN, might perhaps in the Antient state of the Country have been, as the Nethergong on the other side now is, a *Separate* Water: altho' in the present it is an *Arm* of the Main one, and takes it's Course Collaterally by it, going into it between Grove and Preston, on the *S. E.* as the Nethergong does by Chistlet on the *N. E.* Under Wenderton it throws off on the Right hand a Production or *Process* that turns itself Eastward up into the country four or five Miles to Woden'sborough or *Win'sborough*, and makes a considerable Compound valley, whose bounds are from Wingham by Ash to Win'sborough; and then round by Crickfall-Rough to *Wingham* again. The other, which is the main Branch of this River, flows down thro' a large Valley under *Littlebourn*, directly from Bridge: here it makes another Easterly turn, and forms a Grand *Process* which strikes off about a Mile under the Down to *Bishopsbourn*, where this little River *Arises*. To this place this noble Valley descends about two miles more from the *S. E.* from Barham, where the *Nailbourn* valley opening into the Sinus of this *Process*, runs down a long course directly *S.* from the Down-hills. This noble Valley from the *Head* of the *Bourn* upwards is a *Dry* valley except *Occasionally*; when, after Great Rains or Thaws of Snow,

II.

Division of the
Stour-Dale.

The Bourn.

Wingham *Process*.

Bridge *Process* and
Nailbourn.

the *Nailbourn* Springs from Eching, Liminge, and Brompton, overflow and make it *one* River with the Bourn, into whose *head* it descends. It's Bounds are these. At the low point of land at the Marshes about a mile *N. E.* of Ickham it Begins; thence it goes on to Lee, Bridge-hill, Barham Windmill, Breach-downs, and so forward all along the Ridge of that high hill by Shuttlefield, up to the Down-hills at *Tatter-Lees*. And it contains within it's district, besides this Great Nailbourn valley, two other Large vallies, *viz.* the *Bourn* and the *Kingston* Branches; that come down into this Process under Barham-Down, with other Lesser branches of which this Grand Nailbourn-Process is Composed. But these will be more particularly described under the head of Uphill-East-Kent.

III.
Division of
Stour-Dale.

The Third and Outmost boundary of the Stour-dale is made by the *Continuation* of this Process from Barham, already described, till it meet another great Inland valley from Dovor at *Lydden*; and then the borders of the whole Stour-dale will be Extended from Barham Mill by the Half-way-house to Lydden-hill; and thence round by Wickham Wood and Bushes, Swingfield, and Pals'worth to *Arpinge-street* at the Down-Hills, about two miles *E.* of *Tatter-Lees*. And these are the very Utmost limits of the whole Stour-dale by which it is Disterminated from both the Region of Upper-East-Kent, and also from the Folkston Vale. But of these I shall be more particular under the Head of Uphill-East-Kent.

III.
EAST-KENT
Proper.

I come now to EAST-Kent properly so called. This contains three Regions, *viz.* the *Lower*, the *Middle* and *Uphill* East-Kent.

I.
Lower.

Lower East-Kent is that Small District that is divided from the middle one, by the *Wingham* Process of the Little Stour. It's bounds are the Marshes of the Stour-Wantsum on the *N.* from Stourmouth to Gurson and Richborough; and from

from thence *N. E.* to Sandwich. On the *W.* it stretches from Stour-mouth to Wingham-mill ; on the *S.* it goes from Wingham-mill by Ash up to Win'sborough ; and from thence Eastward again to Sandwich.

The Vallies of this Division, come on the *W.* and the *N. E.* into the main Levells by principally *Two* considerable Marshes, *viz.* the *West Marsh*, and those of the *Goshall*. The *West-Marsh* going out of the main Levell, spreads itself above a mile in width, and scarcely so much in length, *E.* under Stour-mouth ; and it receives the Trunks of *four* Vallies, which come from the hill above the Process of the Wingham branch of the Little Stour, for the space of above two miles between Preston-street and Gilding-Town ; all which pass down by Preston-Parsonage, Elmton, Oden, Overland and Uzzin, into this Marsh. Three more also it has between Uzzin and Gurson, that begin about Ash, and go by Ware, Goldston and Sannils, through so many small separate Marshes, into the Levell between Uzzin and Gurson ; where the Point is formed by a few short dry Vallies on each side, which distinguishes the Common from the *Goshall* Levell. This other parcel of Marshes, which belong to the *Goshall* Levell, are of greater Extent than the *West-Marsh*, it being full two miles across from *Gurson* to the point of land beyond *Sandwich* that separates these from the Sand-down Levells.

It is distinguished into *Two* by the Waters that come down thro' it's Vallies into the *Goshall* and the *Win'sborough* Levells. The *First* Receives seven or eight Waters between the Point of Gurson, and Win'sborough, thro' so many short Vallies that arise on the hills at Cop-street, Wedington, Ash, and Ringleton ; whose Waters being mix'd in the Levell about Loughton, are emptied into the River under Richborough Castle. The other has but *Three* vallies, *Two* of which
come

1.
West Marsh
Vallies.

2.
Goshall Marshes.

come short from Win'sborough, and bring their Waters into the *Delf* at Sandwich ; but the Third is a Long valley that comes Dry from the Lydden-hill at Wick-wood all thro' the whole length of Middle-East-Kent, down near to the Levell at St. Bartholomew's Hospital ; where, near the Mouth of this valley, arises that Water that is called the *Delf*, and runs thro' the whole Town of Sandwich into the River, not far without the North Wall of the Town.

The Main Levells.

As for the *Remainder* of the main Levells, they are a *Continuation* of the last ; which bounding this Region on the *N.* and the *E.* extend themselves up a considerable length so far as to *Deal*. They have been spoken to under the Article of the *Portus Sandvicensis*: so that I have nothing more to take notice of here than the little Spot of *Richborough*; and the *Sand-downs*. The Former was an Island in the Antient state of the Country ; and it is this day cut off from Gurson on the Continent, by a narrow slip of the Marsh. It is an *Entire* parcel of land by itself, of it's own Construction ; in shape it is Quadrangular rounded off from it's South point at Loughton, to it's West under Richborough-street. It is about a mile and a quarter in length, and three quarters of a mile over in it's widest part. This Little spot is the Miniature of an Island ; and it is as Regularly formed as the Isle of Thanet, by it's little Vallies all meeting at the *Ridge* of it's hill, and descending into the main Levell on the North and the East ; and into the Gosshall on the West and the South. It is famous for the fair Remains of a *Roman* Camp, encompass'd on three sides, *viz.* the *W. N.* and *S.* with a noble high thick Wall, all overgrown with venerable Ivy. As for the East side, it is *Open*, and I suppose was always so, there being no Access to it ; for it looks, the whole Front of it, down a high Præcipice, which is defended by the River ruuning close and strait at the foot of the Hill. The Area
above

Richborough.

Castle.

above being plow'd up, has Now no Remains of any Buildings; only in the middle, there was not long ago a Vault under an eminence which is supposed to have been the place of the *Prætorium*, or General's Pavilion.

The *Sand-downs* are a long bank of Sand that Edges the Shore for five miles and upwards from *Pepper-ness*, which is the *S. E.* point of Sandwich-bay, to *Deal*. It is about a quarter of a mile wide; except about the *Castle*, where it ends in the Baich but a little way within the shore. About the middle of it is a *Cut* that runs almost strait from the Sea thro' the Downs, near, but not quite into the River, about three quarters of a mile *E.* of Sandwich. This is now called the *Old Haven*, and it is probably the Place where *Cæsar* drew up the remainder of his Ships "in aridum into the dry land," after the great Storm had Shatter'd his Fleet, when he was gone forward into the Country to give battle to the Britains: And upon this Coast, somewhere about Deal, probably between Deal and Walmer, is the spot where he first landed his Romans; this being all a "soft, open, plain Shore." Opposite to this whole Tract the Sea is call'd the *Downs*, the well-known Anchorage of both our Royal Navy and our Trading Vessels.

Sand-Downs.

As for the *Western* boundary of this Lower Division, it's Vallies are all little short *Lateralls*, seven in number; that form the Ridge of the Hill for the space of three miles, between the West Marshes under Stour-mouth, and the branch of the little River under Wingham aforesaid. But on the *South* it's Division is made by the Ridge that runs above the Wingham Procefs, full four miles, from Wingham-mill to Win'sborough.

The *Eastern* boundary is very short, containing scarcely two miles from the low point of land at Sandwich, along the Ridge by Grove up to Win'sborough and the parts adjacent; from whence several Short tails of the Southern

Vallies collecting themselves on that Hill, descend to the edge of the Marshes between this and Sandwich.

II.
Middle
EAST-KENT.

I come Now to *Middle*, or that which is more particularly called EAST-KENT among us. This is a Beautiful portion or Region of the Country, that is bounded on the *W.* by Stodmarsh and Renvill above Bridge; and so on by Hard's and the ridge of that hill as far as to the Hills above Stouting: This is it's boundary if you consider it as divided from the proper Centrall Valley of the Stour-dale; which is it's greatest Extent on the *W.*: but if you exclude the Little Stour from being a part of it, then it's borders will lye all along the Ridge-hill East of the Bourn, from Stourmouth by Preston, Ickham, Lee, and Bridge-Hill; and thence along the ridge of the Nailbourn Valley to Barham-mill; from thence by the Half-way-house to Wickham-Wood upon Lydden-Hill, where it meets with the Ridge-Hill of the Great Dovor Valley; which comes from the Cliffs under the Castle. On the *E.* it is terminated by Dovor Cliffs, the *South Foreland* and Deal, along the Sea Shore; and from thence inland on the *N.* by the great Marshes under Hackling as far as to Sandwich: from which place it is common with the boundary of Lower East Kent, *viz.* Win'sborough round by Ash to Wingham again. Thus is this whole Country made entire to itself by the Wingham Branch of the River and the Sandwich Marshes on the *N.* but on the *S.* it has the remarkable Continuation of these *Two* inland *Processes* of the *Barham* and *Dovor* Suits of Vallies, which meet one another on the Ridge of the hill between Lydden and Swingfield, and so shut in the Country on that side. The *Use* of this Contrivance of these *Processes* seems to be, *viz.* that these Long vallies may have a centrall or *common* Sinus, lying in a Different direction from their General course,

Use of
the Processes.

course, about the Mid-way of their Descent from the Hills; into which they may empty themselves, and thereby præserve the Regularity of their Collateral courses; whereas otherwise, in so *long* a Run as about Sixteen or Seventeen miles from the Down-hills to the Marshes of the Portus Sandvicensis, they might have fallen into much Confusion. And that this is no accidental thing, but a designed Process in Nature, is plain; in that we find the same Continuance of the *Swerdling* Vallies projected at Shamsford Bridge from the Stour-dale; which runs up very near to the Western side of the great Valley at Bridge; only This is considerably *Shorter* than the Barham Process, as the Vallies it receives into it's Sinus have a *Less* way to come down. And it is Observable that all these three Processes have their several Waters under the same Sort of Apparatus, and each of them have their particular *Nailbourns*; Two of which go into the Stour at Sham'sford and Bourn, and the Third into the Dure or Dovor River at Ewell. So that to be very Exact in the South Bounds of this Middle Region, we might take in also the *Sham'sford* Process, and include all the Country from Sham'sford-Bridge to Dovor: As this is interrupted with only one *Intermediate* valley between Heppington and Bridge; (whose Lateralls by the by are strongly Inosculated, and thereby United with the Extremities of this Process about Nackington and Lower Hard's) and this Process very nearly joyns the other two, and incloses this *W.* Region, from the *Center* of the Stour-dale, quite across to the *Sea* at Dovor. And indeed the whole is but a concerted Continuation of the two Nailbourns of the Stour, and the River Dure, almost upon a line from *W.* to *E.*; for all the Country within these three Processes is of the same sort, *viz.* an agreeable mixture of light airy Lands, both Arable and Downs; and it is all of it so *Different* in it's Aspect from the Other parts of the country,

A Single *Intermediate* Valley.

try, that we may very well extend this Region so far to the *W.* as I have now laid it, tho' it has been already consider'd in another View, as part of the Stour-dale.

I.
Western Group.

As for the Particular vallies of this part of East Kent, there is first on the *West* a Group of *Five* that belong to the Marshes of the Little-Stour, which lie between Ickham and Wingham. These occupie at their Original all the space above the Little Stour, between the Western Ridge of Ad'sham-Downs and Gu'nston; and they come from the Ridge of Barham-Down, by Garn'ton, Bramlin, Ad'sham and Gun'ston Park, down into these Marshes; of which the last enters the tail of the Wingham branch at Danbridge. From this Place this Process turning Eastward receives several short Laterall *Water* vallies from the North, and pretty long *Dry* ones from the South Side as far as to *Ringlemeer* under Win'sborough; where the Spring-head of this Branch of the Little Stour arises; and being here strongly Inosculated with the first branch of the next Division about the Church, it makes a short turn and receives into it's Sinus a large Valley that descends from the South in a collaterall direction with the others, from three Large branches; which above their Union near Chillenden come down in Collaterall courses from the hill of the Barham Process about Denhill, the Half-Way-House, and Woolwich-Wood; collecting it's Capillaries all over the ridge of the hill for the Space of about three Miles.

A Single Intermediate Valley.

Next comes a Noble Valley, and though a *Single* one, the fairest and widest of the whole Country. It runs the whole length of the Region from *N.* to *S.* and comes into the Grand Marshes at the Exterior Point of the Sandwich Levell, under the Hospital. It's Course from thence upwards is *E.* under Knolton, descending thro' Barston from Wickham-Wood on the Lydden-Hills; where this Valley
makes

makes a general insensible Inosculation, with the Exteriors of both the Barham and the Dovor Vallies. So that this is properly a single *Intermediate* valley; that separates the Western from the Eastern Group, both above upon the Hills, and below at the Extremities of their Proccesses, between Win'sborough and Eastry; a little short Irregular space between this and the Eastern Group, being filled up with a small Marsh valley that comes in at *Word* from Fendelon.

The *Eastern* Group belongs to a little Irregular Marsh, that goes inland from the main Levell between Hackling and Foulmet. It sends out two *Proccesses*; one to the *W.* by Ham to Statenborough, and the other to the *E.* by Mongeham to Walmer and Ringwold; and it receives *Six* branches, that come all from the Ridge of the Great Dovor Valley, at it's Origine on the *S.* and from Martin, Ringwold and Walmer below, on the East.

II.
Eastern Group.

The First enters the Marsh under Ham from *Eastry*; and it is so far a *Water-Valley*: But from this place upwards it is all *Dry*, and proceeds from about a mile *N.* of Tilmanston, from three Branches, there united, which come down by Lower and Upper Eythorn, and the West side of *Waldershare* Park, from the Hills about Sibert's Wold, (commonly call'd Shepherds Well,) Colred and Meusfall.

I.

The Second Branch falls into the Center of the Marsh at *West-street*: it does not run the whole length like the rest, but occupies a little District of it's own, that is hemm'd in between the first and third vallies; which space it fills up very regularly with four branches; being in length from the hill above *Betteshanger* down to the Marsh at *West-street* about two miles and a half; and about one and a half in breadth from *Updown* to *Norbourn-mill*.

2.

The Third Branch, which is the first of the second part of this Proccess, comes a little more eastward into the Tail

3.

of the Marsh from Northbourn; and so far it is a *Water-Valley*; but above it is all *Dry*. It descends from it's Division at Little Mongeham: whither two branches arrive by the Eastern side of Waldershare-Park and from Ashly, which begin at the Hills above Meusfall about Singlet.

4.

The Fourth branch, if it may be so called, is the *Tail* of the Marsh itself extended to Mongeham; where receiying some large Lateralls from *Ripple*, it is made up of two branches United below Sutton and Wingleton, which come down by West Langden and Langden-Abby, from the Hills, for the space of a mile and a half about of Singlet, Temple and Archer-Court. Here is a remarkable *Inosculation* of this most beautiful Down-Country, betwixt Wingleton and Hezling-wood readily enough perceived upon the spot, tho' not easily described; where the Country betwixt Waldershare on one side, and Martin on the other, and Whitfeld at the end of it, seems to the Eye to be so gradually and Uniformly *Concave*, as bespeaks the Universal inlet of all these easie and gentle Vallies into one another by a General Inosculati-on all around.

Inosculation.

From Mongeham the *Remainder* of the Tail of this Pro-cess proceeding all dry, receives many pretty regular Shal-low Vallies from Ringwold and Walmer; but leaves a plea-sant narrow Tract of land extended length-ways from the Marshes at Foulmet: It's numerous little Vallies form it on each side up into a ridge, that runs from Foulmet to Walmer, and they descend into the Sinus of the Process on one side, and the Marshes on the other. But these are all too minute for any particular notice; except one, which is a double one, that insensibly slides down from a very gentle rise about *Up-ber Deal*, and is Inserted into the very Extreme point of the Deal Marshes close to the Shore under Walmer-Castle; and

This,

This, furnishing all the space, which is a very large and pleasant open Field, between the last Valley and the Sea Shore, compleats this Division.

Extreme Vallies.

The Little *Remainder* of this East Kent Proper, that is bounded by the Shore between Kingsdown and the Dover Hills; which is in length about five, and in it's widest part about three miles over, is spent in præparing and forming the *South Foreland*, which is the other part of the *Cantium*. I say the other part; because I apprehend that, altho' the whole Eastern projection of the Island, between the *N.* and the *S.* Forelands, was call'd the *Cantium*; yet each of these Promontories was in particular call'd so by Different Travellers. Those who sail'd from the *Portus Itius* (whether *Calais*, *Whitsand*, or *Buloign*) made the *S.* Foreland first, and that was their *Cantium*: but to those who came from the Belgij, the *N.* Foreland was their Headland. But as this Eastern Angle of the Island (which including the great Inland Sinus of Sandwich Bay, is extended to about fifteen miles in length) Projected out into the Sea; the whole was, in the General way of speaking among the Romans, call'd the *Cantium*, that is the Eastern *Cant* or Corner of Britain.

S. Foreland of the Cantium.

To return then to the Vallies of the *Cantium*, there are *Five*, of which the First only is of Remarkable Extent.

Northern Vallies.

This comes into the Cliffs at *Kingsdown* under Ringwold, a large and Deep Valley as far as to Oxney; whither from three Branches, united in their Descent from East Langden, Gurson and Solton, they descend from the Top of the Hills, between Archer-Court and the Fright.

The other Four are of a much less Extent; they head up to the Ridge-hill of the Inner branch of the Last all the way to the *Cliffs*, Diminishing in length as they go nearer to the Point; of which the last is very short, scarcely half a mile long, and forms the Northern side of the Foreland.

As

2.

Southern.

Dover Procefs.

As for those on the South side of the Point, there is one very small one that forms the Turn on this side, like the last on the other: next to which comes one somewhat longer, lying more Obliquely to the Shore. But then as the Cliffs begin to turn inland and form the High-hills of the Dover Valley, The Apparatus begins to be very particular, and remarkable. For first under the Castle on the *N. W.* there is a very deep, short (tho' something longer than the two last) and compound Valley, that spreads itself like a Fan into various branches; which form this hill between the Castle, the Fright and Broad-Lees. And from this place on the North side of the Great Dover Inland Valley quite up to *Lydden-Hill* (which is five miles) you reckon *eight* more Suits or Groups of the same sort of Deep Valleys, spreading themselves in the same delightful manner from the bottom to the very ridge of these Steep Green Down-hills, which have been already described as the Boundary of the Eastern part of East-Kent-*Proper*.

Caesar's Military
Marks.

But I cannot leave this Country before I have taken a little notice of the numerous *Intrenchments* which signalize and adorn it. The accurate *Dr. Halley* has in a set Discourse which you will find in the third Vol. of the *Miscellanea Curiosa*, prov'd to a Demonstration that *Caesar* landed not on the South but the *North* side of the S. Foreland, somewhere in the *Downs*; but the Particular place of his Descent he does not so much as Guess at. As a Sequel to this Argument, I have frequently read *Caesar's Commentaries*, with a design of finding this Conqueror's *Rout* in *Britain*; but I cannot accompany him in his Marches to his Victory by any thing he has wrote of his Wars here. He was quite a Stranger, and too much in haste to be very Minute in his description of a country, thro' which he made so Rapid a progress. But

as all the Learned agree that *Barham-Down* was his *main* Camp, I please myself with the thoughts of having trac'd him, I think, very plainly by his military Works from his Landing place on the "*Apertum, molle & planum littus*, the open, soft and flat Shore," all thro' this famous Region to *Chartam* Down, and *Jullaber's* Tomb; where he gave the conquering Blow, and reduc'd the *Kentish* Britains to the Slavery of the Roman Yoke.

The First of this sort of Works that I find, is *One* small round Double Intrenchment with "an *Agger* or *Mount*, and a Double *Fossa* or Trench," close to the Shore between Deal and Walmer-Castle; and *another* deep single Foss near a mile off within the Country, round *Walmer* Church. Here I think he fought his first Battle *in the Sea*, and set his Men on Shore. But some perhaps (for what Other good reason I can't tell) only from their *Vicinity* to these Castles, knowing them to be of a more *modern* date, may think these no older than our Henry the viiith; who built these Two and that upon the Sand-downs to defend this Flat coast from Foreign, and particularly at that time, from French Invasions. If this were so, we should begin our *Series* of Works, about a Mile farther, upon the Hill between this and Upper Deal, where there are some faint Remains of Lines of Intrenchment near the Mill; or else at farthest at *Ripple*, where, a little *N.* of the Church, there is a very manifest small Rais'd Area, whose Front looks over a pretty Deep Lynse-bank towards the succeeding Works. Either of these Spots, especially the Former, as they were near the Coast, and the most Elevated Ground of these parts, were very proper to keep a good look out, both upon his Fleet which he had left behind him at Anchor, and upon the Motions of the Enemy, who after his first battle at the Shore had Retir'd this Way. But whether his *Landing-place* was upon this precise Spot of

Walmer.

the Shore between Deal and Walmer, or a little more to the N. on any part of the Sand-downs, it is all the same as to his *Rout*; for as he could not cross the great Marshes to Mongeham, Norbourn or Ham, he must come hither in pursuit of the Enemy. And accordingly as you go from hence by Mongeham, Sutton, Maimage, Barvill, Eythorn, Barston and Snow-down to his *main* Camp on Barham-Downs, you find a continued Course of these sort of Works: sometimes only Aggeres or Banks; sometimes Banks and Fosses or Trenches; sometimes Banks Trenches and Tumuli or Mounts and Barrows. Now they are Single lines, then Double or more Complicated works; all of them situated on the tops of the Downs or Hills as well for Espiall as Defence, and disposed in regular Succession one after another, leading to his main Camp at Denhill. But Those at *Three-Barrow-Down*, begin to be Singular; as they are Large and the Trenches Deep, and particularly adapted and continued up to a great extent and variety of Entrenchments, that possess all the Hill between *Denhill-Terrace* upon the Edge of Barham-Down, and *Nethersole* House under Snow-Down. And this was a place very proper for the Station of his main *Corps*; as, by it's Situation, it commanded all the open Conquer'd country Behind him to the Sea, where he had left his Fleet; and the Woody country Before him where the Britains harbour'd, and from thence frequently Alarm'd and annoy'd his Foragers. In like manner on the other, the West side of these noble Remains; all the Works, which are very particular, extend themselves from *Denhill* all over *Barham* and it's neighbouring *Add'sham* Downs, and at the end of the former drop down into the bottom under *Bourn-Place*, and terminate at the Bourn: but they soon appear again upon *Juniper* Down in the way to *Iffing* Wood. Here is a strong and deep Treble *Intrenchment*, such a one as Cæsar describes, with Agger, Foss and
Vallum,

Camp at
Denhill.

Iffing Wood.

Vallum, (an outward Fortification made with Trees cut down and laid before the Works) when he says of the Britains, “ *se in silvas Abdiderunt, locum nacti egregiè & naturà & opere munitum, quem domestici belli causâ ante præparaverant*; that they hid themselves in the Woods, in a place very strong by Nature, and greatly Fortified by Art, which was one of their strong-holds in their Civil Wars;” out of which he drove them before his Decisive battle. And this is *Such* a one as after much search and enquiry I cannot find any thing like it, in any of the Woods about *Barham Down*. From this place to the Barrows at the Top of *Chartham-down*, at a convenient distance from the *River*, (whither, he says, “ *the Britains had sent off their Horses and Chariots*”, which he could not well have said of *Barham-down*) there are Three or Four single lines which cross the whole Downs in Different places, and are a proper advanc'd Guard to this place, which is full of many Deep Trenches, and probably was the Britains main Camp when *Cassivellanus* came to their Assistance, and collecting them into one Body put himself at the head of them, and made their last Stand. But these are so very much crowded by a great number of Barrows, that it is not easie to delineate them in the Chart for want of room: however they leave us no reason to doubt that a bloody battle was fought here, by the number of the Slain on both sides, and that this was their *Last Effort*; for after this I find no such sort of Works, except a little Entrenchment in the Road under *Denge-wood* above *Fullaber's* (*Julij Laberius's*) *Tumulus* or Tomb; where probably, as *Cæsar* Informs us, (“ *eo die Cecidit Laberius*”) that General was then slain; except some slight ones on *Old-Wive's-Lees* on the *other* side of the *River*, which *Laberius* might have made against the Incurfions of the Britains, or *Cæsar* have thrown up to secure himself against their Return after this Battle. From this time and place he seems to have
look'd

Chartham Downs.

Fullaber's Tomb.

look'd upon them as a Conquer'd people, and to have left them to themselves; having dispossest'd them of their strong holds, and drove them out of the open Country into the Woods, where they lay pretty Quiet: "*neq post id tempus unquam*" says he, "*Summis nobiscum copiis hostes contenderunt.*" For after this he never had any *pitch'd* Battle with their main Forces; but Immediately pursued *Cassivelaunus* to his own Town on the other side of the Thames, somewhere about Brentford in Middlesex: where I leave him. This is as much as I have room to say about Cæsar's military marks and signs; and tho' the bare mention of them would have been sufficient to my present design, yet I could not pass so slightly over those curious *Remains* which point out to us that mighty Conqueror's Progress, by which he has made this Part of Britain so famous in Antiquity.

EULOGIUM ON
East-Kent.

After this cursory, dry, *Topography* of the Vallies, I can't but stay a little, "*amenitate loci captus,*" and Indulge myself in the Review of this engaging Country. It's meer *Geographical* Situation affords ample matter for Encomium: It's Coasts and Harbours lie so very Commodious for the Exportation of it's own rich Stores to a quick and sure Market, and at the same time pour into it's Lap the full Horn of Plenty; adding to the natural blessing of a *Healthy* Climate all the Variety of Foreign *Wealth*. It is indeed the Key to the Commerce, Arms and Arts of Europe. But I shall forbear all Remarks of this sort, and take only a *Picturesque* Prospect, and regale myself with the Pleasures which our naked Eyes can prælent us with from Barham-Downs, or from any other place of Eminence; or indeed from almost every spot of this pleasant Land.

The Face of this whole Glebe is Lively; it's very Aspect has a peculiar Grace and Gaiety. It is but Moderately in-

inclosed, especially in the more Eastern parts: much Less obstructed with Woods and Hedges than are the other parts of the Country; yet is it not so wide and Open, like some reputed fine parts of Britain, as to resemble a Ghastly expanse of Sea and Air. It looks Vacant, yet not empty; Unincumber'd, tho' furnish'd; and without Wildness Free. It's Vallies are noble, wide and gentle: they are no where so Retired as to be deform'd with lonely, darksome Depths; nor are it's Eminences thrown up into ragged mountainous Præcipices, equally hideous to the wary Traveller, but they are Gradual and easie to the ready Step. Neither are it's Lands hid under any Considerable Tracts of gloomy, dreary woods, nor the direct Open ways interrupted by the incursion of boggy, putrid Marshes. It is all a Rural Garden; and the Shallow depressions of it's sloping vallies are but so many Ha-ha's, that Extend the prospect, without Hindering the passage into it's Various apartments. Here all Nature is lightsome, terse and Polite. It's very Surface is, as it were, illuminated with a Brighter sun; and it's Lights and Shades are splendidly, yet softly Blended into one another by the exceeding-sweet mixture of White Roads and Yellow Arable lands with the lovely Green Wolds, that steal down into their bottoms from the summits of their hills. There at One Season whistles the industrious Husbandman to his list'ning Team, while with his steady hand he directs the crooked Plough to turn up the willing Tilt; and which is even a better sight, at Another the Busy Farmer with inward Glee beholds his merry Harvest-train; some Stooping with their Keen scies to his nodding Crop, others Carrying home the golden Labours of the Year. Whilst There the simple Shepherd, with his second self his Watchful Dog, *All* the live long year tends his harmless Flock, and as it suits his mood, loitering o're the extended Lawns, in thrice three

colours for his Amaryllis knits his True-love-knots ; or, under some lofty Pine or humble Tamarisk reclining, tunes his melodious Reed to the sweet whispers of the Ev'ning Breeze, and pipes his Rural strains to every airy Nymph that fleets or'e the verdant Plains. What need of more? simplicity, plenty and pleasure conspire to make this the very Picture of Arcadia.

This is all Nature's work: but what Shining honours are paid to this happy Region by the numerous Seats of the Gentry; blest Abodes! all incircl'd within their pretty little neat Enclosures. These are the Beauty-spots of Art, that give a Foreign Air to Nature's face, and Heighten the charms of her features.

But what gives us the noblest Idea, and exceeds all Description is the Broad, liquid, silver Margin, that mixes it's bright Face with Earth and Heaven, and throws it's Glittering Arms around almost All it's borders; for all this delightful Scene lies in full Prospect of the Sea at *Sandwich-Bay* and the *Downs*. What a new field of Wonders is here!-- This at once separates that lovely Region from and connects it with the Universe. To the sprightly Aspect of the Land it joyns the Solemn Air of the Channel, and opens the Short confin'd View of this narrow nook of our Island into a wide extended Plain, bounded at the farthest Ken of the Eye, with the White cliffs of the opposite Kingdom; and enrich'd near Home with the Awful Beauties of the mighty Waters. Here the Floating foundations of the Royal Castles of the British Navy, like so many grand Palaces, gallantly Ride on the glorious surface of the Deep; and the numberless Sail of the Trading-craft, from the rich India-man to the smallest Fisher-boat, make as various an appearance by sea, as the houses of the nobility, the gentry, the farmers, and the cottages do by land; but with this beautiful improve-

ment,

ment, that the Still life of the Shore is here nobly contrasted with the moving Pictures of the watery Plain. Shadows Skim, Winds Ruffle, Billows Rise, the Breakers Foam; Lobsters Crawl, Porpoises Rowl, Sea-Gulls Hover, and the Ships;---some Plough the Surge with a propitious gale, others Dance at anchor to the play of the waves. In fine, for there is no end of Images, the whole strikes you with such an assemblage of Diverse, nay Contrary beauties, which delightfully harmonize into one Ravishing Prospect; and every thing in This is so Delicately different from the Rougher work of the Other regions, that it seems, as it were to have been made, not by the hands, but by the Fingers of it's allwise Architect: or rather to be pencil'd out as the Model of a more enlarged design, as well for the Admiration of the Curious as the Entertainment of the Wise; who would all, if they could choose their lotts, fix their Seats in a Place, that for the conveniences and true delights of Life is an Earthly Paradise.

But, loath as I am, I must leave These sweet Fields; I must quit these Charming Mansions; I must now turn my back upon these bewitching Belvidere's, and descend in Silence and Retirement into the deep and Dark vallies of

UP-HILL EAST-KENT.

The bounds of this country on the *W.* are; the Ridge of the Hill above Bridge, Upper-Hard's, Swingfield Minis, and that part of Stone-street that lies on the Edge of West-Wood above Stouting. Or if you take it in it's Utmost philosophical Extent, you must follow the Swerdling-Down to Sham's-ford, and making the Stour your Boundary as far as to Jullaber's Point, come along upon the Ridge of the Hill to Drugsted, Sole-street and Ashenfield Hoth to the Wye-down-hills at Brown's-Corner above Perillous Point; and thence
you

III.

UPHILLE, KENT.

Boundaries.

you must go along the Ridge of the Down-Hills to West-Wood afore said.

Part of the
Stour-Dale.

Now altho' this Western boundary, as I have before observed, borrows this *Inner* Portion from the Stour-dale already described; Yet, in as much as the THREE PROJECTIONS OR PROCESSES of *Chartham-Downs*, *Barham-Downs*, and the *Dovor* Valley do Intersect this Whole country Across from Sham'sford to Dover, and cut it off from Middle-East-Kent; they may be looked upon in one view as the entire, Natural limits of Uphill-East-Kent on the *W.* and the *S.* so far. But it's Southern boundary is *farther* extended by the Down-Hills to the Cliffs at *Caldham* above Folkstone. On the *E.* these Cliffs terminate this Region up as far as to Dover Cliffs; for here it meets with it's Northern boundary, which is the Ridge of the Three Projecting Vallies as above. To these Three Divisions then all the Vallies of this Extensive country, Systematically belong.

I.
Swerdling Process.

As for the First, *viz.* all that District which belongs to the Chartham and Swerdling Inland *Process*, I shall need to say nothing here, because it has been already described as a part of the proper Stour-dale. I therefore pass on to the Second.

II.
Bridge.

The Great Valley of the Little Stour keeps it's course direct, *W.* above Bridge, on to the Hills, as before described. It is a long, strait, Deep, single Valley, furnished only with short Lateralls on each side. It comes by Hard'ss, Stelling and Rhode Minis; partly from the Extremities of the great Expansion of the Nailbourn Capillaries, and partly from the Ridge of the Hill at West-Wood, above Limidge Green; where it Inosculates the whole Group of it's own Extremities remarkably, with those of the Stouting branch of the Ashford Vale. But at *Bridge* it Receives the Large *Process* from Barham, before described, that brings away the Little Stour from

Barham-Down
Process.

from it's *head* at Bourn-Place, and the *Nailbourn* from Barham, Elham, Liminge and Eching, as aforefaid, into the Bourn. And this is the *Inland Procefs* into which all the Vallies of this Division descend from the Hills.

The *First* of these comes in at *Kingston* under Barham Down, thro' the *Covet-Woods*; all over which are dispersed pretty Considerable Lateralls on each side: but beyond them about *Dane* it descends strait, single, narrow and deep, from the Inner Expansion of the great *Nailbourn* valley below Rhode Minis; occupying no more than half a mile at it's Original. The space of about two miles that is left below, unfurnish'd with any branches or lateralls of This valley, between it's Insertion into the Procefs and the Bridge valley, is regularly fill'd up with Three pleasant ones; each diminishing in length as they are nearer to Kingston: these come in about *Bourn-Place* and *Charlton* from the Ridge of the Hills that are made by the Lateralls of each of them.

The Second is the Great *NAILBOURN* Valley. This is a noble, long, wide and deep *Water-Valley*, that is the *Centrall* one of this Barham Division. It falls into the main Procefs at Barham, single; yet is it near a mile and a half wide, and adorned with considerable Lateralls on each side, by Dunningston, Wingmore and Elham, up as far as to Ottinge. But here it makes a wide and pleasant radiated *Expansion*, not unlike the Palm of the hand spread open; which is compos'd of numerous Capillaries that like so many Rays shoot from the Ridge of the Hill at Rhode Minis on the *N.* thence round by Stone-street and West-Wood on the *W.* thence by Hampton and Eching Hill on the *S.* and *E.* and then up to Shuttlefield on the *N.* again; making a Diameter of about three miles Across each way. These *Capillaries*, which are almost too *numerous* to be reckon'd at their Originals, are collected into four large, deep Branches, that are

1.
Covet.

2.
Barham
NAILBOURN.

Expansion

The Nailbourn
Springs.

1.

all Inserted into the main Channel at Ottinge. Through This valley the *Nailbourn* descends into the Little Stour; which however is not a constant, but an *Occasional* water, that after Great Rains or Thaws, makes it's way from several Springs, whereof the Uppermost is at *Ecking-street*: And this Spring, being, according to my Observations, upon the *Levell* with the Spring-head of the Great Stour under the Hill at *Postling*, very seldom fails even in the Dryest Summers. The Second is about a mile Lower at *Liminge*; and this also seldom is dry, at the well; but sometimes it does not afford Water enough to flow one mile so low as to *Ottinge*. The Third is at a place called *Brompton's Pott*, about three miles and a half lower than *Liminge*: and this thro' the space between *Elham* and *Barham* is dry, except when the *Nailbourn* is *coming down*, as the Country people call it: for when it runs *over* at this Spring, it never fails of *going thro'* into the *head* of the Little Stour at *Bourn*, and makes a little River of it's own Size, more or less *permanent* for several months, as this Spring affords it it's supply. This last Spring (if I be not deceiv'd) is 324 perpendicular feet *above* the Low-water-mark at the Mouth of the River Stour in *Sandwich-Bay*, and *Equal* with that part of it's western Arm that lies under *Chart-Leacon*, the *Old Branch* of the Stour (as it is call'd) at the meted house in *Kingsnoth*, on the farther edge of the *Ashford Vale*; and with it's Eastern branch somewhat above *Park-Dyke*. It is 171 feet *below* the Upper spring of this *Nailbourn* at *Ecking* and the Head of the Stour at *Postling*, which are of *Equal* elevation with one another. Lower also 117 feet than the second Spring at *Liminge*, which is equal on the *W.* to the River under *Surrenden*, and on the *E.* to it at *Stamford*: And it is moreover 117 *above* the Head of the *Bourn* into which it is discharged; which is the same height from the Bay with the
main

main River under *Jullaber's* Tomb, half a mile below Chilham. These seem to me to be *real* Philosophical facts, and such as would afford ample matter of Discourse, and help us to make such a comparative View of these Springs and Streams, as might furnish us with sufficient Reasons, to understand why the Little Stour is a *Permanent* Water no *higher* than Bourn, and why the Fountains of the Nailbourn, especially the *Pott*, do so often and so long cease to flow.

The *Third* is a large, deep, compound Valley, that comes thro' Denton into the Barham Proccess at *Broom*; which after receiving *five* long and Large lateralls from various parts of Swingfield Minis on the *E.* and many others of a much less course on the *W.* is divided at Rakefole, under Stander-Hill, into two main Branches: the *first* of which comes from under the *West* side of *Acriss* from the Expansion of the Great Nailbourn Valley at Shuttlefield; and the other under the *East* of *Acriss* from Winteridge, Palsworth and Arpinge-street, upon the Down-hills. These cover the hills for the space of two miles and a half between Elham-Mill, above Ottinge, and Arpinge-street; their Capillaries, being all the way gently Inosculated with one another, and in two or three places, more Apparently with the Folkstone Vale.

The *Remainder* of this Barham Proccess is continued on towards the *E.* from Broom between three and four miles up to the Ridge-Hill or Boundary of the Great *Dovor* Valley. It is single, furnished only with Large lateralls as far as to Wooton; but being there divided into diverse branches, it is expanded all over the Hills for the space of two miles, from Smeffall on Swingfield Minis to Wickham-Bushes and the Wood above *Lydden*; Inosculating Gently all it's Capillary Extremities upon the Ridge of these Hills with those of the Lydden Valley.

III.
Dovor Proccess
3.
Denton Valley.

4.
Proccess to
Lydden
Valley.

So Ends the Barham-Down Division. I come now to the Third or Last, which is the

DOVOR PROCESS.

This is of Less extent than the former; but the main Process itself, with especially it's two Principal vallies, are much pleasanter than those of the Barham Process; they are indeed larger and deeper, but they are much more Open and not incumber'd with the many large Woods that overspread the other; which, however Useful in life they may be, have no very agreeable, but rather a Melancholly aspect. This Country on the contrary is almost all *Downs*; yet is it so very Different in it's Surface from East-Kent Proper, that the Hills and Vales of that are all flat in comparison of these deep Hollows and high Mountains, which although of no dangerous Access, are much pleasanter to view at a distance than to travel over.

The Cliffs on the *W.* of the South Foreland are intersected, as aforesaid, by a great Chasm at Dovor, and Proceed inland above a noble, deep, wide Valley, that is encompass'd on each side, but especially on the *N.* with these high Down-hills beautifully Variegated, and orderly Ranged. This Process goes on from the Cliffs, about five miles, till it meets with the Vallies of the Wingham and Barham Division of East-Kent Proper, upon Lydden Hills. The first Course or Direction of the *main* Sinus of this Valley runs to the *W.* but it's branches come from the Down-hills on the *S.* in Collaterall directions, with all the Rest; or rather Collaterall to themselves, but a little more inclining to the *E.* than those; in conformity to the Course of it's own shore, which trends away from Dovor rounding off towards the West. In the Sinus of it's main Valley runs the River *Dour* or *Dure*, which flows from

III.
Dovor Process.

From the
Cliffs.

To the Barham
Vallies.

River Dour.

from two heads, one a little above *Ewell* Westward, and another Southward near *Alkham*.

The branches that belong to this Process are *Five*, of which the Two first are by much the most considerable both as to the Length of their course, the Depth of their ducts, and the Height of their hills.

The First falls into the Western End of the Great Dovor Valley at *Lydden*. It comes from the Hills between *Palsworth* and *Trallingham* or *Uphill Folkston*, down under *Swingfield* into *Lydden-street* (a course of five miles;) expanding itself into wide lateralls on each side, which are in most places a mile, and particularly in one between *Smessall* and *Everden*, a full mile and a half over from Hill to Hill. It Inosculates all it's Extremities, tho' in most places insensibly, into it's next neighbours on each side of it.

The Second is the Great *Ewell* Valley. This is a *Water* Valley, and the *Centrall* one of this Division: In which the River *Dure* and it's *Nailbourn* comes down to Dovor. It enters the Great Dovor Valley at *Cast'ney-Court*, from *Charl'ton*, where is the Southern Head of the River; and thither it comes from *Dillingore* about two miles higher, where arifes the Spring of it's *Nailbourn*. This *Nailbourn* *Occasionally* flows into the River, and so far it's Valley comes single, having only considerable wide Lateralls on each side: but a little beyond it at *Standon*, it receives a pretty large Branch from the Cliffs at *Caldham*, that begins to form the Down-hills which look over the *Folkstone Vale*; and then becoming Single again, and Shallow, it descends all along the Down-hills just at their Ridge, shooting up it's Lateralls all the way down from *Arpinge-street* above *Newington*. Here it begins at a point between that and the Great Sinus, into which it is gently Inosculated in company with the Exterior Branch of the *Acris* Valley.

I.
Lydden.

2.
Ewell.

It's *Nailbourn.*

*Intermediate
Valleys.*

The little Space of about two miles that is left between Lydden and Ewell at the bottom of these two Grand Vallies is regularly fill'd up with two or three small *Intermediate* vallies, that are terminated at the hill made by the lateralls of both, about a mile and a half to the South, about Chalksole.

3.
Buckland.

Between this Great Valley and the Cliffs are two other Principal ones, of a Considerable, tho' of a much less Extent. The former, which is the *Third* of this Division, comes in at *Buckland* by Comb and Polton from the Exterior Branch of the Great Valley above mentioned, just above *Standon*.

4.
Mason Dieu.

The other, which is the *Fourth*, enters the Great Valley at the *Mason Dieu* from Farthingloe, near which it's two Branches joyn: the *Former* comes from Elms, West Hougham, and the same hills with the last valley: the *Latter* from Hougham, Caldam and the Butts upon the Cliffs, beyond Lydden Spouts; which are three Holes towards the bottom of the Cliffs that continually spout subterraneous Waters into the Baich of the Shore.

Spouts.

Extreme Vallies.

There is yet one Single valley of much less extent, that comes from under the Exterior branch of the last, close along by the Top of the Cliffs, under *Hacliff* or Archcliff, quite to the middle of Dovor town; where it is a little depressed, and makes the two remarkable Chalk hills in the Cliffs that look down upon the Street.

Thus have I reduced all the Vallies of *N. E.* Kent into their several both General and Particular Collections. I come now to the Only Part of *S. E.* Kent that is within the District of my Chart, that is

THE ASHFORD VALE.

III.
SOUTH-EAST
Kent.

This in General is all that SOUTHERN Country that is Bounded *above* on the *N.* by the *Down-Hills* all along from Charing by Wye to the Cliffs at Caldam above Folkston; and

and by the *Stone Hills* which run *below* almost Parallel to the other, on the *S.* from Boughton Malherb by Chart and Allington to the Folkstone Cliffs at *Cock Point*, which is just under the beginning of the Down-Hills under Caldhams. But altho' all this seems at first sight to be but *One Country*, inclosed within these General Hills; yet in as much as the Eastern part of it is served intirely by it's own Waters, without any communication with the other, I call it properly the Ashford Vale, *no farther* than where the River *Stour* possesses it; so that the *Western* bounds of this Vale are made by a little, Gentle, rising hill, that goes *across* from the Down to the Stone-hills between Lenham and Boughton; for all over that Tract of above two miles wide, the Exterior Brooks of the *Stour*, and those of the Leeds-Castle branch of the *Medway* part from one another. And in like manner, the *Eastern* limits are form'd by a gentle but More obvious Rising between the same ledges of the hills, crossing the Country from Postling-wents, under Brockhull's Bushes, by Honywood, Newing-Green, and Lymne, to the hills above West-Hyth; where the Exteriors of the River *Stour* part from the Exteriors of the *Westhanger-Park* Brooks, which take a contrary course down to the Sea. I shall therefore demonstrate these Regions as *Distinct* from one another; the First under the Title of the *Ashford*, and the Second under that of the *Folkstone Vale*.

We have already accompanied the River *Stour* thro' it's Dale to Wye; where it goes out from the Ashford Vale as a *Single Duct* or Channel to Convey the River, already formed in the Vale, away to the Sea; which it does, with the Accession of but a few more Waters here and there collected, from this place quite down to the Bay. But from Wye upwards it receives into both sides of it's bosom many Waters from the Down-Hills all the way up to Ashford; the

Formation of the
River *Stour*.

the Channel being as yet single or undivided. And let it be here remark'd, that the Vallies that are contain'd within both the Lenham and the Postling Division of the *Ashford-Vale*, are all *Water-Vallies*; they being the *Matrix*, in which the River is entirely Generated or formed; and principally from the Brooks that spring from the *Down Hills*. These therefore are they, which I shall briefly run over; for as for the Others which come from the Stone Hills, their Course is so *short*, especially in the Lenham Division, that it is but of small Moment to either the Progress or Increase of the River to give any more than a general notion of them. But as These Vallies joyn their Streams all over the Vale to the Formation of the River in the Meadows, give me leave just to hint, that whether I describe them by the Course of their Waters or of the Vallies themselves, and whether I Insert them into the River or into the Meadows, the Description amounts to the same; and I shall use them interchangeably.

It's Division.

The River which at Ashford is split into two Ducts or *Arms* naturally divides the Country into so many nearly *Equal* parts: the *Western* may be called the Lenham and the *Eastern* the Postling Division. We shall begin then our Description at *Wye*: here the vallies of the Stour first Traverse the Country both from the *W.* and the *E.* from the great Ledge of the Down Hills down into the *River*, viz. from Eastwell Park on one side of it's Channel and Wye-Downs on the other. And the Capillaries of the two Interior Vallies of both these Suits, descend as aforesaid, from a very gentle *Rise* in the great Chasm at Wye, which crossing from hill to hill, manifestly here separates the Ashford vale from the Stour-dale, as before explain'd.

I.
It's WESTERN
Branch.

In our WESTERN Division, There are five considerable Vallies that come from *Eastwell* Park into the main Channel

nel of the River before it divides at Ashford; which makes a distinct Region of itself. Its bounds are Wye, Challock, Eastwell, Potter's-Corner, Godington Toll, Ashford, Coningsbrook, and so back to Wye again.

I.
Eastwell.

The First of these is the *Spring-Grove* branch that comes a large, deep, *dry* Valley from between the hills about Challock and the Eastern side of the Park to Brewhouse and Ely. Here this *first* Spring of the Vale Arises, (for the little Rill from Buckwell is so short that I pass over it) and from hence it slides down thro' a large and fair Valley by Spring-Grove into the Meadows at Wye Bridge. This Valley *Inosculates* all its Exterior Ducts strongly with the Exteriors of the Grav'ny Valley of the Western Division of *N. E.* Kent, all over the top of the hills at the Lees and Kingswood.

I.

Inosculation.

The Second Branch comes from a spring at the bottom of the Park down under Boughton Lees, and so by *Wilmington* into the River under Frogbrook.

2.

The Third comes from the farther End of *Challock Lees* and the Spit-gate of Longbeech-Wood thro' the West and the South sides of the Park to Eastwell; a Deep, Compound dry valley so far; but here just by the Church springs a Brook that flows down by Kennington and Clip-mill into the River near the other: This also at its Original makes a Grand *Inosculation* with the Capillary extremities of the Interior branch of the Grav'ny, and the Exterior of the Ospringe valley, between Westwell-Downs and Pattock; and in concert with the Lateralls of the Spring-Grove valley, it makes the Park a Distinct Hill from all the Rest, and opens a free Communication of the Air between the Ashford Vale, and the Western Part of *N. E.* Kent. It also shapes the Turn of the Down-hills from their Southern

3.

Inosculation.

course at Godmersham, into their Westerly or General Range.

4. The Fourth begins at the South corner of the Park at the foot of the Hill, close by the Last, into whose side it is so insensibly Inosculated that it requires very close Observation to know whether this or the last be the Valley that comes from Spit-gate; and gliding down on the other side of Kennington Common and Burton, where it is called *Bacon's Water*, it mixes with the River near Wilsborough Lees. An Interstice of about a mile between the mouth of these two last vallies is regularly fill'd up by little short ones that fall from the East and South sides of Kennington-Common into the Winding *Reach* of the River under Burton.

5. The Fifth comes a little more West from the foot of the Hills, as do all the succeeding ones; and by it's Lateralls forms the Ridge of the hill that Separates this Division from the next, all thro' it's descent; being Inosculated every where insensibly with it, after the general method of Neighbouring vallies: About *Sandyhurst* it's Water arises, which takes it's Course, thro' the Warren, by Bibrook into the River not far from the North side of Ashford-Bridge. In it's passage it receives into it's bosom some deep Lateralls, that *Inosculate* very strongly with the lower Division around Godington-Toll; but the Rest of them, heading up to the Ridge of Chart Leacon and Ashford, præpare the River for it's division into it's two Arms: which Apparatus is answer'd by other short Lateralls that go down on each side from this Ridge into the River between Ashford and Chart. And this Latter part may if you please be consider'd as a Distinct division, as it's Apparatus belongs entirely to itself; but it is small, and has nothing remarkable enough in it to need a farther Description.

Inoscultation.

II.
Ashford.

As

As to the Rest of this branch of the River which descends to this place by Charing from it's head at Lenham, I shall consider it all as one Region; and enumerate it's Vallies in the Order as they lye.

III.
Charing
Division.

The First of these Vallies which is most Considerable, is a large, Deep, Compound valley. It comes from the Westwell down-hills between Diggs's and Shottington Farm; occupying the space of two miles at it's original. It has Three Great Branches; the Westwell, the Park-house and Diggs's. The two former of which are united with the Third under Hothfield; from whence they hasten down to the Meadows at Worthing Mill.

1.

The Second is a Single valley that comes from the Hills close to the other, and receiving some pretty large Lateralls from the other side of Hothfield Heath, it sinks into the River at the Paper-mill.

2.

The Third is a Compound of two Branches; they come down from the hills above Westwell Leacon and Diggs's into the River near Broken-Forestall.

3.

The Fourth is a double Water that comes from between Pett and Charing, East under Calehill-Warren into the River at Ford-Mill.

4.

The Fifth is a large Compound valley, whose Original possesses a mile between Charing and Cobham. It is made up of three Principal branches; which run down from the hills by Charing, Hook and Cobham, to their Union at Stone-street; from whence it's Duct makes it's way between Park-house and Cale-hill into the River at Little Chart.

5.

The Sixth is a Single Valley, that falls from the hills between Cobham and New Shelves, and enters the Meadows a little distance from the last on the West of Park-house.

6.

The

7. The Seventh is a large Valley, that comes from between New Shelves and the last, and goes down by Borely over Charing-Heath into the Meadows a little more to the West.

8. The Eighth comes from between New and Old Shelves, down between the two Heaths into the River a little more to the West.

9. The Ninth comes from between Old Shelves and East-Lenham, down by Rating-Forestall over Lenham Heath into the Meadows still a little more to the West. This Valley has two or three considerable Lateralls which form the hill of Lenham Heath on the North side of it, and Inosculate with the Lateralls of the main River Vallies, from East Lenham to the Heath. The Intermediate Space between this Branch and the next is made up with short Lateralls that form the hill of the Lenham Heath on the side of the River.

10. About a mile farther, a little before you come to *Royton-Chappel* and *Chilton*, There is a Center of three Vallies, the Northern one of which is indeed properly only the Channel of the River. This comes from one Spring in Lenham-street; and from another in the road to Charing, a quarter of a mile more to the East called *Street-well*, which is the *Reputed* head of the River. The Rills that go off from these two having collected the Waters from under the hills by their Original capillary veins, and received other Laterall ones in their Descent, form the Original *Channel* of the River, that goes West under Royton-Chappel into the Meadows a little below *Chilson*. At this place come in also the two other Branches; one Double from *Sandway* on each side of *Chilson*, and the Other from *Boughton Malherb*. The Extream Capillaries of the two Former, as also all the Western Lateralls of the River-branch of the Northern Vallies, arise as aforesaid all across the Country, Insensibly *Inosculated* with the

the Capillaries of a Branch of the *Medway*, (the Principal or Reputed head of which is call'd *Eawell*;) which part from one another on this hill, and descend contrary ways; *Our Waters* running as here described into the *Stour*, and those of the *Other* by Leeds into the *Medway* at Maidstone.

As for the *Southern Vallies* of the *Stour*, quite from Boughton Malherb to Ashford, they are so *short* and of so little Consequence, not indeed as to the number but the *Quantity* of Waters they bring into the *Stour*, that this River may be very well deem'd to be the *Offspring* of the Down-hills. But these Vallies have a *Secondary Use* that claims our notice, which is to Form on our side the Ridge of the Stone-hills, which are the Boundary of this Vale-Country from the greater Vale the Weald of Kent; at the *foot* of which the River *Medway* arises exactly in the *same* manner as the *Stour* does under the Downs.

So much for our Western, let us now go back to the Union of the two Rivers at Ashford, and attend the Eastern branch up to it's head.

This is all that Region which lies on the Eastern side of the Channel of the *Stour*, and is canton'd out on the North, by *Five* setts of Vallies into so many Subdivisions; and on the South it has several more which compose *Two* only.

The *First* Division on the North contains *Six* considerable Vallies, and four short ones, that come down from the Down-hills between *Wye*, *Cold-Harbour*, and *Brook* on the North, and *Hinxhill* and *Ashford* on the South. They lye so plain and Collateral with one another that they need no farther Description, than to say, that they are all included between the Channel of the *Stour*, and the long Ridge of the Hill that runs down by the East of *Brook*, *Spelders Hill*, *Hinxhill* and *Wilsborough*; all which distinguishes This from the Second Division.

Southern Vallies:

II.
EASTERN
Division.

I.
NORTHERN are
I.
Wye.

11.
Brook.

The *Second* General Division is all possess'd by one large Compound valley, that spreads itself over a very considerable Tract of Land. This Carries that large *Brook* or Rivulet that drains it's various parts, and comes down under *Hinxhill*, by Swatfield bridge and Wilsborough-mill into the River below. It is bounded by the Hill of the First Division all the length of it's *N. W.* side: at Top it's confines lie between *Troy-town* and *Hampton*; on the East it has the hill that descends from *Hampton* to the *Red-lyon* by *Brabourn Lees*; and on the South below, it is confin'd between *Sevington* and *Wilsborough* down to the Meadows under *Alsop-green* at *Hockwood Barn*. It's particular branches are numerous, both on the North and the South side of it's Channel.

Northern
Branches.

7.

On the *North* it has Seven; whereof the First comes double partly from *Wilsborough-Lees* and partly from a little under *Hinxhill*, where it is strongly Inosculated with the Sixth branch of the *Wye* Division. The other six come from the hills between *Troy-town* and *Brabourn-street*, possessing the space of upwards of a mile and a half at the Original, and they fall down into the Brook successively one after another to the East of *Swatfield Bridge*.

Southern
Branches.

4.

The *Southern* side of this Brook is occupied by Four principal vallies that come down from *Sevington*, *Mersham-street*, *Hatch-Park*, *Smeath* and *Brabourn-Lees*; which taking up the space of about two miles, go into the Meadows between *Swatfield Bridge* and the *Tile-Kiln* under *Brabourn-Lees*. As for the lower part of this Valley at the Meadows quite up to *Swatfield Bridge*, which is a Duct of somewhat above two miles and a half long; it has no branches, only many very short Lateralls on each side, that compose the Ridge on this side of it's Channel, that separates it from the *Proper* River *Stour*. And it's other or Upper extremity that lyes
above

above the Tile-Kiln aforesaid, is only a Single Duct furnished with four or five Lateralls up to it's Original at *Comb*, under the hills near Brabourn.

The Third Division is a little narrow Slip that lies under the last, close down to the Channel of the main River; in length from Hockwood Barn by Mersham to *Scotts-Hall*, near five miles and a half; in which space about a dozen considerable compound Lateralls enter the common Channel of the Stour, which come down from the Ridge of the Intermediate hill last mention'd, that separates the Brook vallies from the Stour; the last of these is the longest of them all, as it comes near a mile and a half from it's *Inosculation* on Brabourn Lees with the last branch of the Brook Valley near Birch-holt. This District, correspondent to the Second or the Western division, prepares the Exit, and conducts the Channel of it's Eastern Arm of the Stour.

III.
Mersham.

The Fourth is a large Division: from it's *Grand Inosculation* at Limridge-Green to the Meadows under Selling, it is five miles long; and in width from the Ridge hill of the last Division to the foot of Hampton hill about three. It has Two large Vallies, that traverse the whole Northern side of the Vale, directly from the hills above Brabourn and Horton into the River.

IV.
Brabourn.

The First of these is a large Single valley, that comes from Brabourn down between the Lees and Stone-hill into the Meadows above *Scott's-Hall*.

I.

But the Second is a very considerable Compound Valley of a much greater Extent, possessing in width near two miles from Brabourn to *Mount Morris*, and in length near five. It begins above the Down-hills beyond Stouting Common, where it *Inosculates* strongly with the Exteriors of the Great Bridge Valley, the Elmsted Branch of the Petham

2.

Great *Inosculation.*

Valley

Sinus.

Valley on one side; and the Capillary expansions of the Great Nailbourn Valley on the other; and then passes down thro' a great Deep *Chasm* or opening of the Down-hills which makes a Capacious Sinus, between Brabourn and Hampton-hill. So far it is a dry Valley; but at *Stouting*, a little above the Church, arises the *Spring* that is the head of the Brook or Rivulet; which receiving considerable Lateralls, runs down by Broadstreet and Hodiford between Stone-hill and Sellinge into the Meadows a little East of the other.

V.
Sellinge.

The Fifth and Last Region is possessed by the Immediate Channel of the River and it's Lateralls from *Sellinge* up to the head at Postling. It is bounded by Sellinge-Lees, Hyam and Mount Morris on the *W*; by the Hills from Hampton-hill to Brockhull's-bushes on the *N*: on the *E*. by Postling-wents, Hony-wood and Newin-green; and on the *S*. by the Stone-hills from Bellaview to West-Hyth. It has several Suits of large Laterall Branches on each Side. The First, which is on the North side of the River, is a Series of three Vallies, that come down from the Stone-hills about Lymne, collateral to one another, and separates this from the Southern Division of this Eastern Region of the Stour and from the Folkstone Vale.

I.
Lymne.

2.

The Second, which is Opposite to it on the South side, is a short compound Valley that comes from Hyam and Hayton into the Meadows at Gimings-brooks.

3.

The Third on the *E*. opposite to the farther part of the last, comes from it's Eastern bounds at Hony-wood into the River *S*. under Stamford Church.

4.

The Fourth Suit comes from *Mount-Morris* on the *W*. and Postling-wents on the *E*. under the Lees into the Meadows on the North side of Stamford Church. Above this place the Channel is divided into two branches that fall
down

down thro' another large *Chafin* or Sinus that is formed between the hills above *Postling* and *Brockhull's-bushes*. Here issue the Exterior Springs of the River, but particularly *That* which arises *close* to the Church, under the foot of the hill, that has a single *Ewe-tree* at the top of it: This is the Spring that comes out of the living Rock at five or six Spout-holes big enough to receive a Mans head: and this (tho' there are at least five or six Springs within half a mile of the place, and all of them contained within this Sinus) is what is commonly called the *River-head*, as it is a constant Spring, that never fails in the dryest Seasons. So far these are all *Water-Vallies*, the true natural Veins of the River, that Collect their stores from every individual part of the hills, both the Greater and Lesser: what remains of this Valley from this place upwards is all Dry. It arises above the hills on the back of the River-head, between *Louseborough* and *Brockhull's-bushes*; and it is so strongly but gradually *Inosculation* with the Exteriors of the *Liminge* Branch of the *Great Nailbourn* Valley (the passage of it's younger brother the *Bourn*) that it is difficult to say Which of the vallies, the *Liminge* or the *Postling* Group, it belongs to; but when in about half a mile's distance from it's original, it arrives at the turn of the Hill, that lies above the River-head, it is distinguishable enough, and opens it's passage into the great Gap or Sinus of the *Postling* branch, as above described.

As for the Vallies in the SOUTHERN Region of this Eastern Division, as they are of more consideration than those of the Western, I shall afford them a little notice. They properly make two Divisions, One on the *Western* and the other on the *Eastern* side of *Collier Hill*.

The *Former* has Six or Seven Branches: The First of which is a large Compound Valley, consisting of five or six sections that are the Proper *Veins* of what is called the

Sinus.

Head of the *Stour*.*Inosculation* and
Sinus.

II.

SOUTHERN
Vallies.

I.

Western.

7.
Of Old *Stour*.

Old Stour; They bring their Waters from Beauvoir-shales, the Moted-house, Kingsnorth, and Byrchland-wood, into the Channel of the River at Park-Dyke and Hockwood-Barn. The most Westerly of them bounds this from the Western Region of the Ashford Vale, and it's Southern Capillaries from the Waters of the Weald of Kent. The other five or six are all single and grow shorter and shorter the higher they come into the Channell, forming the Low ridge of this Gentle Hill from Byrchland-Wood (by Collier-Hill) to Broad-Oak, and *Inosculating* all their Extremities round the hill with those both of the first Branch of the Eastern Division, and the Bonnington branch of the Weald.

II.
Eastern.
7.

To the Second or *Eastern* Part, belong also six or seven Vallies. The First of them comes a considerable length from under the Stone-hills above *Allington-Fright*; in it's Descent receiving some Lateralls, particularly one large Compound one, that forms the Eastern side of Collier-hill. The others arise all at the top of the Stone-hills, from the Quarry above Allington Fright to Afterpool near Lymne; and they come down in more Oblique directions into the River between Eve-Gate and Sellinge-Lees, in so regular a manner, that they need no farther Explanation.

I have now accompanied the River Stour up to Both it's Heads; and have finished my Progress thro' the Ashford Vale. I proceed now to the other part of this Low Country, which is the

II.
FOLKSTONE
Vale.
Boundaries.

FOLKSTONE - VALE.

This is a pretty pleasant little Region Independent on any other part of the Country. It has Downs; it has Meadows; it has Marshes; it has Brooks; it has every thing in small parcels that you find in the larger Regions. It is bounded on the *W.* by the Ridge of a Gentle hill that separates the

Ex-

Exteriors of the Slabbrook-Valley from the Exteriors of the Stour in the Ashford Vale. On the *N.* the Down-hills from Brockhull's-bushes to the Cliffs at Caldham distinguish it from Uphill East Kent, for the length of six miles. On the *N. E.* from Caldham on these Cliffs to the Saltwood Brook at the Eastern end of Hyth (about five miles and a half) it is included within the Sea shore; and on the *S.* from that Brook to the Exterior of the Ashford Vale, about three miles more, it is divided by the Stone-hills from Romney Marsh. It's greatest length from Newing-green to the Cliffs at Caldham is eight miles. It's Vallies, as those of the Ashford Vale, are all *Water-Vallies*.

The Disposition of the Vallies of this Country naturally make two, *viz.* the *S. Western* and *N. Eastern* Divisions, whereof the First contains three, *viz.* the Slabbrook, the Saltwood and the Sea-brook Waters; and the other but Two, *viz.* the Sandgate and Folkstone Brooks.

The *Slabbrook* is the most Western Water; it flows down a large compound Valley that comes by three or four Branches from the hill that separates these from the Stour Vallies under the Down-hills at Brockhull's-bushes; and also from many more all over the top of Westenhanger-Park as far as to the Stone-hill: These are all joyn'd at the Slabbrook, which falls down into the Sea *W.* of Hyth, at the *N. E.* end of the Tail of the great Bank of *Sea-baich* that lines the Shore two miles long, and a quarter of a mile wide.

The *Saltwood* Brook comes from Beachborough Hill, down under Saltwood Castle on the other side of Hyth into the Sea near the Former.

The *Seabrook* is the Principal water: It comes out of a Great Sinus under the Hills at the Hangers between Beachborough and Newington in four or five branches. It is a large Compound Valley, of which the Principal is that which

I.
Western.

1.
Slabbrook.

2.
Saltwood.

3.
Seabrook.

*Sinus. and
Inosculation.*

which comes from close under Tatter-Lees: They all descend by Frognall and Newington, unite at Cold Harbour, and after receiving Lateralls on both sides, go into the Shore at Seabrook. At the end of this Sinus is a General *Grand* Inosculation of this Vale with both the Upper Region and the Ashford Vale. For on the *W.* the hills of the Hangers *sink*, to let in the *Eching* or Eastern Group of the Great Nailbourn Valley; whilst the *Liminge* or Western Group of the same Inosculates as strongly, on the other side of the Hill, with the Exteriors of the *Stour* above it's Head at Postling. And on the *N.* the Vallies shoot up several lesser Heads thro' the lesser Sinuses of the Hangers, and Inosculate more Insensibly with the Exteriors of the *Denton* Branch of the Barham Valley, that begins it's Course on the Hills between Tatter-Lees and Arpinge-street. These three Vallies run directly across the Vale from the Hills to the Sea, and the Last of them extends itself to the length of four miles, which is the Greatest Width of this whole Country.

II.
Northern.

1.
Sandgate.

2.
Folkstone.

But the Vallies of the *Northern* Region, which are but *Two*, take a more oblique or Easterly course to the Sea. The *First* is a small one, about a mile and a half in Length, and does but fill up the Interval betwixt the next of This and the last of the other Division. It comes from the Eastern part of Cheriton, about the Oaks, down by Querling into the Sea at *San'gate* Castle. But the main and Principal one arises by many Capillaries at the Exteriors of the Sea-brook, all along from *Pean* under the Hills almost as far as to Cheriton Church; which being collected into a pretty Channel, descends by Bredmere thro' *Folkstone* down into the Sea; receiving all the way in it's Descent from the Down-hills, for the space of three miles, nine or ten branches, which flush the waters down from several very plentiful springs, the most considerable of which are those that arise about the *Castle*,
and.

and Sugar-loaf Hills. On the South side of it's Channel it receives many short Lateralls that are not of Moment enough to require a particular description. It may be noted that this is the only Water that empties itself directly into the Sea, for all the rest of the whole Vale Sink into the Baich and Sand, very near the Shore, and loose themselves in it.

Of these Streams I can't but take particular notice of one that is partly *Natural*, partly *Artificial*, call'd *St. Enswith's Water*, which this Lady convey'd to her Monastery. These Freshes, we suppose, used to be at least very frequently, Overflowed with the Tide in her time up as high as to that place in the Meadows where she has *Diverted* it from it's natural Course into this *Aqueduct*, which she made for the supply of her House. It is the Current Opinion of the People here, that this Water does actually *Ascend* in it's course from the Marshes to the *Bale-Pond*, which is the Reservoir or Bason into which it Empties itself; but others upon the principles of Hydrostaticks, won't admit the Possibility of any such ascent, as there is no Mill or Engine to force it up. I was curious to know what my Portable *Barometer* would say to this matter; therefore in July last, I went with it from *High-water* mark under Folkstone town up to the *Spring-head*; and then down again by the Artificial *Cut* that carries this water, first across the Meadows, and then out of them into the Uplands all the way to the Bale-Pond, which is very near the top of the Cliffs, by the Church: and from thence I descended the steep way down the Cliffs to the same High-water mark again underneath them. And, because they may be something particular, I will here produce my *Observations*.

From High-water mark up to St. Enswith's Spring-head, about half a mile *W.* of the Castle-hill, in the next Sinus

St. Enswith's
Water.

beyond the Cherry-hole, it is about *two Miles and a half* upon the Line.

From the Spring-head to the place under Bredmere-wood, where the *Artificial* Cut goes out of the natural Channel, across the Meadows it is *a Mile*; and from thence to Drove-stocks at the edge of the Meadows where it leaves them, it is about *half* a mile.

From thence to *Wiltie* in the Uplands it is about *three quarters* of a mile; and from *Wiltie* it is half a mile to the *Bale-pond*, which is within eight or *ten* rods of the top of the Cliffs that look down to my High-water mark.

Now allowing *ninety* perpendicular feet for every tenth of an inch of the Mercury in the Tube (which as you will see below, is what I find to be near the Truth) it is from High-water mark

	<i>Perpendicular Feet;</i>
To St. Enswith's Spring-Head - - - - -	216
	<i>Perp^r. Feet.</i>
From thence to the Cut at Bredmere-wood -	117
From thence to the Edge of the Meadows at	
Drove-Stocks - - - - -	18
<hr style="width: 100%;"/>	
This makes the <i>Descent</i> from the Spring, a	
mile and a half - - - - -	135
From thence to <i>Wiltie</i> it <i>Ascends</i> - - -	36
<hr style="width: 100%;"/>	
This leaves from the Spring-head perp ^r . feet of	
Altitude - - - - -	99
From thence to the <i>Bale-Pond</i> it <i>descends</i> again	18
<hr style="width: 100%;"/>	
Total Descent from the Spring is - - -	117
From the <i>Pond</i> to the High-water mark it is -	99
<hr style="width: 100%;"/>	
Total Elevation of the Spring-head above	
High-water mark is - - - - -	216

H. W^r.
Mark.
O

Now if my Instrument do not Deceive me (and I don't know any reason to suspect either it or myself of Error in the

the Experiment) this is the State of the case, however improbable it may seem: And, as I have no time to spend upon Disputes, I leave it to the consideration of the Curious, without any other Observation upon it than this, that the Descent of the Water of 117 feet from the Spring head to the Artificial cut at Bredmere, is thro' a *Natural* Channel of the Usual dimensions of these Spring-head-Rills, perhaps at a Medium somewhere about a *Yard* wide, and *six or eight inches* deep; but the *Aquæduct* that *diverts* this Water from it's natural course from this place at Bredmere Wood, and more particularly at Drove-Stocks, just where it leaves the Meadows to *ascend* (as is supposed) the Uplands, it is a square Brick Channel, scarcely a *foot* wide or deep: so that the Water descends 135 perpendicular feet thro' a *wide* Channel a mile and a half long, before it makes this supposed Ascent of 36 feet to Wiltie, thro' a *narrow* one of three quarters of a mile; from which place all the way to the cistern at Folkstone town's end it is also a very narrow and shallow Channel: but out of the Cistern it is convey'd near a quarter of a mile, thro' a wider cut into it's general Reservoir, the Bale-pond. So that the Vulgar Opinion of this Water's being brought up to St. Enswith's Monastery, seems to be not altogether without Foundation; as it does manifestly, even by common observation, *ascend* from Drove-Stocks to Wiltie: but they are deceived as to the rest by the high *situation* of the Pond above the Sea, being at the same time Ignorant that the *Descent* of the valley from Drove-Stocks thither is so great as to leave this Pond in fact 18 perpendicular feet *lower* than the beginning of this *Aquæduct* at the Edge of the Meadows, from whence it's valley *Ascends* to *Wiltie* and *no* farther.

I have now nothing more to remark in the Folkstone Vale, than that the RAG-STONE Hills which are it's Maritime boun-

boundary, begin and set off almost close under, and much below the Chalk or Down Hills, at Eastware Bay. They take their way fast by the Sea as far as to San'gate Castle; but here the shore trending gradually towards the *S.* gives room to the narrow slip of the *Tail* of Romney Marsh to intervene; which, as the Coast winds itself off towards Dimchurch and Romney, grows wider and wider. But these Hills keeping on their Course *direct*, first over part of the Marsh, as far as to Allington, and thence by Chart, Pluckley and Egerton to Boughton Malherb, they overlook the Weald, and accompany the Down-hills in pretty *near* a Parallel line to the end of my bounds, and much farther.

I come now to the Weald of Kent and Romney Marsh, the other parts of South-East Kent; of which, as they are out of my District and Proposals, I should have nothing to say, did not my Desire of rendering my Chart as Compleat as I can, dispose me to present them each with a Tinct or Ground suitable to the General Nature of their Lands, and to Map them in a free manner so far as my Paper extends. By this slight Work (as I call it in comparison with the Rest of my Chart) not only their Situation, but their Nature and Consent with the rest of the Country will plainly appear. And this finishes the Description of the whole *Eastern Angle* of *Britain* from Sea to Sea.

III.

WEALD of
KENT.

It's Bounds.
The Clay Hills.

THE WEALD, OF KENT

Is all that country that has the *Stone-hills* on it's *N.* from Boughton Malherb on the *W.* to Allington on the *E.* Here, at a little house called Cophouse, there sets off from the *Stone-hills*, another Ledge of hills, which are a stiff *Clay* or *Marle*, the natural Soil of the Weald. These turn down first a little way *S.* but very quickly round off to a *S. W.* direction and form a pleasant angle or *Corner*, that lies
be-

between the Ashford-Vale and Romney Marsh. This Ledge of hills keeps on the same course, still Receeding farther from the Stone-hills, as it goes on by Bonington, Bilsington, and Ruckinge to Warehorn, which is the Extent of my Paper; and these hills are it's Southern boundary, that divides the Weald from Romney Marsh.

This whole country is the Sinus or *Matrix* of the River *Medway*, as the Ashford Vale is of the Stour: and it is proportionally Larger than This, as the Medway is a Greater river. And so much of it in particular as appears in my paper, under the greatest part of the Stone-hills, is possess'd by the main Branch of the Medway; whose Springs, Rills, and Brooks arise and are Generated under the foot of these hills, exactly in the *same* manner as those of the Stour do from the *top* of them, and from the *foot* of the Down-hills. That the manner therefore of their so doing may appear in Concert with those of the other River; I have just sketch'd out, not the very individual Local Springs and rills, as I have endeavoured to do exactly in the other country, which lies within my Description; but rather the *manner* of the Rise of these rills of the Medway under the hills opposite to the Springs of the Stour above them in the Ashford Vale; and I have pointed out the Course of their Descent into their Brooks; some of the larger of which, that have occurred to me in my seldom journeys in the Weald, I have delineated in their proper places. So much in short I have done as sufficiently shows, when the Brooks or Rivulets which receive these their Rills, begin to be of some Note. But all These, and many more by me unknown, belong to the main branch of the Medway that Drains all this Country (except those that water the little Nook between Shadoxhurst and Coppus, whose waters fall into the Marsh) and they go down in *one* Arm by Betheriden, Smarden,

Headcorn, Style-bridge and Hunton, to Yalding, where it is united with the *Other* Great branch of the Medway that comes from Tunbridge. These now become One, take a direction, (as the Stour does when it leaves *it's* Vale) and roll along thro' Maidstone and Rochester, a Noble wide and deep River, into the West Swale; or rather into the Mouth of the Thames, between the Isle of Grean on one side, and Sheerness and Queenborough in Shepey on the other.

Inosculation.

1.

At Surrenden.

What is farther remarkable in this Country, is it's several very *Grand* Inosculation with the Ashford Vale. The *First* is between Surrenden and Goldwell in Chart Magna; where the Vallies of the whole country by a very Gentle rise enter the Ashford-Vale; with whose Vallies it is gradually yet strongly Inosculation: for here they leave a great Hollow, for the space of three miles, between that and the Hill at Goldwell; the Stone-hills partly Intermitting and partly Receeding inward to Hothfield and Godington.

2.

Chart Magna.

But the *Second* is of a Grand Extent. For the Stone-hills, which Resume their course at Goldwell and proceed thro' Great Chart, Intermitt or retire inward again from the Quarrie at Beauvoir-Shales, to Ashford, Wilsborough, Sevington, Mersham and Smeath: after which they Return to their Former course at the Quarry at Tap-Hill on the *W.* of Allington. By this Recess the Vale for the Space of full *five miles* upon the line, is laid so Insensibly into the Weald, that it looks all like one entire flat Country; the Descent of the Capillary vessels of the several Waters being very Gentle; yet their Intermixture is so Intimate, that without an attentive and judicious Search, you don't perceive the little Elevation of the Ground, that separates them all from one another, and the Weald from the Ashford-Vale: especially, as all over this spot of Ground, on this side of the
River

River Stour, the Soil, which is a deep stiff Clay, is so exactly the *same* with that of the Weald, that one would be apt, whatever the Local are, to lay the Philosophical bounds on the other side of the River at the Stone-hills, did not the manifest Distribution of the Waters all thro' Kingsnoth, *two* contrary-ways, precisely Distinguish these two Regions from one another.

Not far from the Middle of this great Chasm there is a Remarkable *Hill* that stands single; and I take this particular Notice of it that I may observe it's *Make* and Construction, as it may well pass for a Sample not only for others of the same sort, but of the Hills in general. It is an high round Mass, left by the falling off of the Capillary Extremities of several Vallies that descend from Three of the branches of the Stour, and perhaps from as many of the Weald, that gently *Inosculate* with one another all round the foot of the Hill; which going from thence into their separate Collections, all equally contribute to it's Formation. But what is worthy of note (tho' it be no very uncommon thing in other places) is that at the very *Top* of this hill there is a large *Pond*; which does not give rise to any of the Springs below at the foot of the hill, nor Communicate with them, except in a very flush time of Water; when it runs over by a little trench or Artificial Cut made for that purpose from the Lip of the pond down to the Rills below. Nor do I suppose that this pond is ever dry, for in the Month of August last, when I was there with my Barometer, after a very *Dry* Spring and Summer; when all the Fountains below, and almost all the ponds of the country round about had been dry a considerable time, the Surface of this Water was of a Large extent, and it had a considerable depth of Water in it. A certain Argument in my Opinion, that whatever quantities of Water may be generated by the *Condensation* of Elevated Vapours

Collier Hill.

A Pond.

Vapours about the hills, yet Nature has other ways of furnishing us with Water by Raising those of the Sea cleansed and purified, or other Subterraneous Waters into various places of the Country. Here was plenty when the low parts had none; nor were those, tho' they lye quite open to the Sun and Wind, Exhal'd or evaporated so fast as they were Supplied by a permanent Spring, that arises, as my Barometer informs me, near an hundred perpendicular feet above the Springs at the foot of the hill. But this would lead me into a large field of Discourse; I must forbear this Argument and close up my Description of this Country with a word of a Third considerable Inosculation between the Weald and the *S. E.* Region of the Ashford Vale, which takes up all the space between this Remarkable Hill and Allington.

3.
Inosculation in
the Corner.

The Extreme Nook or Angle of the Weald being form'd as aforesaid, by the different Dispositions of the Stone and Clay-hills; it is occupied by a large Compound Water-Valley, that Descends by it's main branch from Collier-hill, and it's Lesser one from Allington, thro' this *Corner* of the Weald down into Romney Marsh; into which it's Mouth opens under Bonnington. The Extremities of both these Branches are strongly, in whole Groups, *Inosculated* with the Broad-Oak branches of the River Stour; with one of them between the Hill and Allington Fright; and with the other between the Fright and the Corner. By this Artifice the whole Stour-dale (which is laid entirely open into the Ashford-Vale at Wye) Communicates it's Air with the Weald: This derives it down into the Marsh, and This to the Sea; whose Atmosphere is on the other hand disperfed all over the Marsh from Dimchurch-Wall, and passes in it's turn, as the Winds carry it, thro' these Avenues to the other Sea at Sandwich-Bay.

Communication
of Atmospheres.

In like manner it may, or rather must naturally be supposed (tho' for want of actual knowing, I have not asserted or Delineated it) that the Vallies of all that part of the Weald, that is not occupied by the Medway, descend across this Corner of it Southward down into the Marsh, and thereby continue this intimate Communication of the Atmospheres of all the Regions with one another; and more particularly, that the great Level that runs up between *Kenardington* and *Warehorn* which I have just noted at it's beginning, as well as others which I have not noted, do meet the *Extremities* of the Medway Vallies somewhere about Woodchurch as far as to Shadoxhurst, for so far is the Medway extended; and that others also do meet the Waters of the Stour in the manner as I have described the Bonington Water: and that these all come down in their several Streams on the *E.* of Warehorn, by Ham-street, Or'ston, Rucking and Bilsington into the Marsh.

The Waters of the
Corner.

And altho' I have not the Authority of either *Simmondson's* or *Seller's* Maps to back this Opinion; yet am I thoroughly perswaded of the Truth of this conjecture from the nature of the country and the disposition of the Main streams of the Medway: for these leave a District that are surely fill'd up with Water-Vallies that descend in a proper and convenient order thro' it. Waters of Lesser note, and Vallies of *all* sorts are entirely out of the *Map-makers* Scheme: their Silence therefore is not to be urg'd against this Opinion; considering especially, that they have neither of them taken any notice of the Brooks that do actually descend from these Inosculationes which I have just now described; It is then no wonder, if they overlook several others that traverse this Country as things too particular for their notice. But whatever Defect there may possibly be supposed in regard to the Waters; yet this I know, that there are all over the Weald regular Suits

of Vallies, that Inosculate Above at the hills in the manner just now described, and maintain their Communication Below, by the entrance of their Mouths into

IV.

ROMNEY
MARSH.

It's Bounds.

ROMNEY MARSH.

This is all that Maritime, Low country, that lies *under* the Clay Hills of the Weald, from *Wareborn* at the Utmost limits of my Paper, as far as to *Coppus*; between which and the *Sea* is inclosed the full Body of the Marsh. From this place, as the *Stone-hills* take their Range above on the *N.* and the *Shore* approaches nearer towards them from the *S.* the Marsh diminishes gradually in width, and goes on by *Brookhull's-Barn*, in a narrow *Tail* or slip between the hills and the great bank of *Sea-Baich* that is two miles long and half a mile wide, till it dwindles by degrees into nothing at *San'gate Castle*, where the *Folkstone Cliffs* begin. This whole Tract was formerly all *Sea*, and has been Inn'd by the great industry of the Inhabitants, at the Expence of the Lords or Landholders; principally by a famous high Mount or Bank called *Dimchurch Wall*, over which the common Road lies to *Romney*; which by the strength of partly it's own Bulk and partly the Timber and Radle-work, with which it is defended towards the *Sea*, keeps that voracious Element from taking fresh possession of it. As for the *Waters* of this Country, which are very numerous, they are great Marsh Guts and lesser Dykes, that Sew into the *Sea*; of which, as the whole Country is out of my District, I can give but little account. However, I have bestowed upon the Lands a Marsh-Ground, and borrowed the Waters from *Simmondson's Map of Kent*, that it may not appear quite naked. As to *Inosculations* with the Weald; I know of none, nor suppose there can be any, except the Mouths of the several Brooks that come into it from thence. For this Coun-
try,

It's Tail and
Bank of Baich.

Dimchurch Wall.

Inosculations.

try, tho' it may have Hollows here and there, can have no Systems or Suits of Vallies, in as much as it is not properly land but *Sea* in it's Original. However there is one Regular single Water-valley; which is the Interior Arm of the Slabrook Water of the Folkstone Vale. This runs, I am apt to believe, the whole Extent of the Marsh close under the Stone-hills, from the Corner of the Weald at Coppus; but I am sure of it from Lymne, close under the foot of these hills, into the Slabrook valley at the West end of Hyth.

Thus have I, with no small labour, travel'd over the whole Country of my Chart, and to the best of my power, given a sufficient Description of all it's Regions and Parts. And herein I have made such a particular detail of all their Vallies; that this Discourse Compared with the Work, I hope, will be very Intelligible; and without it, it is no wonder if This, like other Descriptions not read with their Correspondent Figures, should appear Intricate and perhaps Obscure.

It remains now only that I explain the Design and Use of a good number of Arithmetical Figures, which you will find dispersed all over the Chart, but more particularly thro' the Course of the River. These relate to the *Altitudes* or Elevations of the several parts of the Country above the *Low* or High-water mark at Sandwich-Bay and other places of the Sea; in order to judge what *Proportions* the parts of this Grand fabrick bear to one another. Scale of *Altitudes*.

These Figures belong principally to the River *Stour*, whose Rise in the Ashford-Vale and Progress thro' the Stour-dale take up a great tract of Land. They are the Result of the *Toricellian* Experiment made, in order to show the Degrees of the Ascent of the River and it's boundaries; both *Absolute*

lute from the Low-water mark at the Sea, and *Relative* to one another between any two given places.

By the *Barometer*.

In this business I employ'd two accurate Upright *Barometers*, both made by the same hand, upon the same Construction: one I fix'd in a constant place in my house; the other, made into a more Convenient form for *Carriage*, I took with me in my Journeys. Their Tubes are pretty large, being $\frac{2}{10}$ of an inch diameter within; and they are both of them equipp'd, besides the common Scale of Inches and Tenths, with a sliding *Nonius* Scale and a *Microscope*; which divides each tenth of the Inches into ten other parts, *i. e.* into hundredths, by the coincidence of some or other of it's lines with one of the tenths of the common Scale; higher or Lower according as the Glas directs you to set the Index exactly to the edge or top of the Collumn of Mercury in the Tube. This is in a few words their Construction; their Use follows.

Barometrical
Experiments.

Much Labour and Judgment have been bestowed by many curious Enquirers in diverse parts of the World, in order to ascertain the Quantity of perpendicular heights that corresponds with the several Elevations and Depressions of the Mercury in the Barometer: but the amount of their Experiments differs more than one would expect from such judicious and faithful Philosophers. *Mariotte*, *Cassini*, and more particularly the *Scheuzers*, who have taken immense pains to determine the height of diverse Mountains above the Level of the Sea, vary very much in their Altitudes. And, to be a little more particular, *Dereham* for the Monument at London gives to each tenth of an inch 82 perpendicular feet; *Nettleton* for some hills in Yorkshire 85; *M. De la Hire* for the top of the great Hall of the Observatory in Paris $89 \frac{2}{10}$; Mr. *Halley* for Snowdon Hill in Wales 90, all English: and *Celsus* for the depth of a Mine near Upsall 105, and for the height

height of a Tower 111 feet of Swedish Measure: the particulars of all which may be seen in the Philosophical Transactions N^o. 229. 236. (*Lowthorp's* Abridgment, vol. ii. p. 13. 14.) N^o. 386 and 388; and in the Memoirs of the Academy of Sciences N^o. 33. English Edition. My own Experiments for several Elevations of Different heights, amongst which the principal is that of the great Tower of our Cathedral, These give me 90, 91, 92, and once or twice ninety-five.

Whence this difference arises in experiments taken by the *same* Instrument and the same Observator, I shall not offer to account for; these are nicetys that I have no need of adjusting, as they are of no consequence to that *General* Idea only, that I design to give of the Plan of this country, as to this Article: if any one has a mind to examine the different Expansions of the Air at it's different Elevations from the surface of the Earth, allowed to different heights of the column of the Mercury in the Tube, he may find them Minutely calculated in Halley's and Nettleton's *Tables* in the Abridgments of the Transactions as before cited. But, notwithstanding these Differences that I have now and then found in my Trials with the Barometer, the greatest part particularly of those that I most Depend upon, give me 90. Wherefore to avoid all Fractions in my Calculation, and to disincumber my Chart from too great a number of figures which in many places would breed confusion, I have Fix'd upon that round number for the Construction of my Scale of Altitudes; that being, as I apprehend, near to the Truth.

The two Barometers, *viz.* the *Standard* and the *Portable* that I made use of in these experiments, correspond very *nearly* with one another; as it was necessary they should, for the *Portable* alone would have been Insufficient for this Work: neither could it be well corrected by the other, if there

Method of the Experiments.

were any Great difference between them. This could indeed have told me in a Single experiment or two, made in a short time of one another, how much Higher or Lower this place was from that; provided the Air in the mean time had undergone no *Alteration* in it's Gravity: but as that is very seldom the case in our Climate for 24 or half 24 hours together, it was necessary to know what these alterations were, and to make proper *Allowances* for them in my Calculations. An account therefore was kept of these taken from the Standard at home, as a *Cheque* upon the *Portable*, whilst I was employing this abroad in my Journeys; by examining of which at my Return, and seeing what *Changes* there had been in the Standard, and at what hours of the day they were noted, I had authority to alter and amend the *Data* of the *Portable*, by adding to or subtracting from them the Greater or Lesser Gravity of the Air at Canterbury; supposing it to be the same in those parts of the neighbourhood, where I was employ'd, as at home; which is no unreasonable conjecture, considering that I very seldom made use of the Instrument but in fair Weather, never in very windy or wet Seasons.

Low-water Mark.

The *Series* of my Experiments begins at *Low-water* mark at the Bar of the Haven in Sandwich-Bay: and, as often as I had opportunities of being in different parts of the Country, I made a Regular Progress from the mouth of the River all along it's banks up to it's head. For I judged that it was easier and less liable to Error, to go up from the Mouth of the central Valley by it's *Sections* to it's Springs, than to come down from it's head by it's Divisions to the Sea. And in my Ascent I was always particularly mindfull to sett down my Instrument in the very *place*, where I took my Figures last, that my Scale might be carefully connected, and free from conjectures; every part of it being founded upon Such
de-

demonstration, as the Instrument is capable of giving me. By this means within the Compass of four or five Years, I found sufficient opportunities of taking the Altitudes, not only of the various parts of the River *Stour*, and of the other Lesser Rivers and Brooks, but also of the principal *Ridges* of the Hills, that are the several Philosophical Boundaries of the different Regions. In doing of which I have been very careful not only to see that the Instrument was in Good order at each experiment, but to be very Attentive to all the particulars of true Observation in myself as well as in that; to the end that being very exact in Taking the figures of the Instrument, I might with my best Judgment make such allowance for any of it's defects as appear'd reasonable to me, when I came to reduce my Barometrical into Arithmetical Figures.

This Scale of Altitudes then, is a Regular, Uniform Series of Arithmetical Figures all set in the very places, where the Experiments were made; and they note the number of Perpendicular feet of the Elevation of those several places where they are Set. I have seldom indeed taken notice of any thing under the 100th part of an inch, which answers to nine feet of Altitude, especially in the Greater elevations: in as much as my Nonius's Divider is professedly calculated to show no more: and this is particular enough for my design; a defect of nine feet in a number of four, five, six or seven hundred, being very inconsiderable. However, as I can by my Eye assisted with the *Microscope* plainly perceive that sometimes the line of the Nonius does not *exactly* fall in with the line of the tenth, but seems as it were between two of them, I have so far taken notice even of these as to make allowances in several places for the other four feet and a half, by making *two* of them answer for nine feet, and have thereby kept up to the precise Truth as near as I could find
it

The Graduation of
the Scale.

it. The *Low-water* mark then at the Bar of the Haven is the *Beginning* of the Scale. From whence as you go up the River, it rises to 9, 18, 27, 36, and so on in a Gradual elevation quite up to the two *Heads* of the River at Lenham and Postling, whose heights are 621 and 495; and even to the *Ridge* of the Down-hills just above them, that mounts up to 783 and 763; which are the Highest hills of the Country, and the boundary of the two General Regions of North and South East Kent.

For the *Stour*.

All the Figures that relate to the Ashford vale and the Stour-dale, *i. e.* to the whole *Rise* and *Course* of the River Stour, Refer to the *Low-water* mark at the Bar of the Haven; but there are Lesser calculations made for the Lesser systems of Waters; whose Figures belong to the *High-water* marks of other various parts of the Sea. On the *West* of Boughton-hill are the Sittingbourn and Faversham Creeks; and the Grav'ny, Sea-Salter and Whitstable Brooks; On the *East* side in the Hern Vale the Swakely and Hern-Bay Brooks: And in the *S. E.* on the other side of the Coast beyond the North Foreland, the Course of the Nailbourn into the River Dure at Alkham; and of that down by Ewell and River into Dovor-Harbour, are sign'd with these Figures. And *Lower* still, on the other side of the South Foreland; the Rise of the waters under the great Down-hills, and their Course thro' their several Channels athwart the Folkstone Vale into the Sea are all mark'd in the same manner. By this means you have not only a general, but a particular, and a Comparative view of all the parts of this Country that as well their *Absolute* heights above the Level of the Sea at High-water mark, as their *Respective* that relate both to the Waters of the Stour and to one another, all appear in a very intelligible manner. The Reason Why I have made all these Lesser calculations from the *High* instead of the *Low-water* mark is,

that

The Lesser Waters

that the Low one, in several places, is scarcely precise enough to be the Beginning of the Series; or if it were, it is often not to be come at but by much trouble; and when you are there, it is in different places various as to it's Depth of Water. The difference indeed is not great; for by the best enquiry I could make among the Mariners upon the several Coasts, I found none were less than fourteen, nor more than 18 or 19 perpendicular feet at most Lower than the High-water mark; which was always in my power to come at, and to make my Observations upon without Interruption. So that in these Districts, if you add *sixteen* feet at a Medium to any of the Figures of Altitudes, you have the Utmost Elevation of these Waters, as you had of the Stour, from it's Barr or Mouth in the Bay. High-water mark is sign'd \oplus and the Low is \ominus : and these marks you will find plac'd in their proper distances from one another; the latter of which is so various that it is sometimes very near, sometimes a quarter of a mile, sometimes half a mile; and in some places, particularly at Sea-Salter, above a mile distant from the Shore. In fine, for I must not multiply unnecessary Explanations, this Scale is so Universal, Uniform and Distinct, that with these few hints you will readily come into the use of it, and understand the Parts and Proportions of the whole Country.

Lastly, as to my *Orthography* thro' the whole Chart, I have been by no means Curious in that point: but rather mindful not to write the names of places according to their true and *obscure* but their obvious and *Vulgar* pronuntiation. Such as Sittingbourn for Seedingbourn; Mil'ton for Middleton; Gra'ny for Graveney; Bas'mere for Baddlesmere; Bar'ston for Barfriston; Shepherd's-well for Sibert's-Wold; Palsworth for Paddlesworth; Hacliff for Archcliff; Orl'ston for Orlaston; and several others of that sort. I write not as a Conveyancer or an Antiquary, but as a Naturalist

Orthography.

who desires to be readily understood by all sorts of Readers; and I think that the most known Names best suit my Design.

I have now said every thing that I think is Necessary to the Explanation of the Design and Execution of my Chart, and shall only subjoyn a word or two about the Present state and condition of it.

*Present State
of the Chart.*

It may be perhaps expected from the Reasons that I gave, in the Beginning of this discourse, for my keeping the Chart under my Correction, and Deferring it's Publication so long beyond my Proposals, that I should now at last warrant it for a Compleat Performance, perfect and free from all *Errors*. Far be it from me to have any such fond or supercilious Opinion of it. I know the Difficulty of the Work too well. The Bodily fatigue of surveying such a Tract of ground so minutely is considerable, but they are nothing to the Care and Thought that are required in Observing, and much more in the Digesting and Delineating such an inconceivable Number of Observations as go to compose this Copious system. The very Geography of places and things laid down in so particular a manner is no Idle matter; yet this is by much the Least part of the main or Philosophical Design: where every Rod, every Yard, nay I may say every Foot, every Inch, every the least Interstice of Ground between these marks and signs, is Delineated in Vallies and Hills, in Springs and Rivers, in Woods and Soils, &c. as they really lye in nature, and as precisely as I can distinguish them. For this is no Dream or Device, the Offspring of a sportive or enthusiastical Imagination, conceiv'd and produced, for want of something else to do, at my Leisure in my Study; but it is a *Real* scheme, taken upon the Spot with patience and diligence, by frequent or rather continual Observations, in the course of my Journeys of business, thro'

al-

almost every the minutest parcel of the Country : digested at home with as much Consideration, and compos'd with as much Accuracy, as the Observer was capable of.

Yet am I so far from imagining that I have left no Mistakes in this my last and Correct Copy, that I think it impossible there should not be *Many*. Some of my own, some the Engraver's, and some of the Press; some that I should have prevented if I could have attended the Artists in their work; some that I could, if I had further opportunities, and some that I could never Correct. Nay I am by a long instructive experience so thoroughly appriz'd of the Nature of this Undertaking, that with the advantage of all that I hitherto know of my Subject, I do not scruple to affirm; that were I to make a *new* Copy every remaining year of my Life, and improve it with all the corrections that I should collect in my future Journeys, yet something would at last be Wanting. Some particulars indeed, that have as yet escap'd my notice, would be added, but others would still be left; some Distances and Bearings of my marks and signs might perhaps be laid down a little more Exact: the Vallies in general might be somewhat more nicely trac'd and divid-ed into their Sections, and the Springs and Rills of the Rivers and Brooks might be multiplied. We do the gross of our Works pretty readily, but we do not finish and bring them to perfection, but by slow and Gradual acquisitions; scarcely ever entering into the true Spirit and Delicacy, till we are entire Masters of them, and are ready to leave them. Nor is it expected, or indeed possible for Inventors, especially at their first Essay, to produce Perfect works. Too much Haste and too little Attention, the natural Foibles of the humane mind, are the Parents of Oversights and Mistakes. Many of these then I must have fallen into even as to the more obvious Actualities or Facts of my Scheme, which by farther
time

time and Observation would præsent themselves in surer and better views. These I own would, one after another, be all set to rights, as fast as I perceived them, and I should come yet nearer and nearer to the meer Mechanical exactness that the all-wise Author has exhibited in This part of the Creation. But then there are Other things, even such as I have no weak or imperfect an Idea of, that would for ever elude the Description of my Pencil or Pen. There is an Inexpressible Consent, Grandeur and Politeness all over the face of the work, that can *never* be made to appear in the *Chart*, as it does in the great Book of Nature. The *curvus Anfractus*, the Manner of the Turnings and Windings of the common Sinuses or Ducts of the Vallies; the different way of their *Divarications* on each side of their Ducts into the greater and lesser Sections of their Ramifications, and Lateral Exits; the Alternate *Osculations* and Indentations of the Mouths of these Sinuses with the Tongues or low points of land, that separate all the Vallies from another on their own side, yet refer them to their opposite Neighbour on the other: the Insensible yet Distinct *Inosculation*s of all the Capillary Extremities of the evanescent Sections of the Vallies at the top of the hills, that distermine the two, sometimes three or four Neighbouring setts from one another; the intimate, deep and extended *Concavitys* or *Incorporation* of whole Groups of Valleys into both their Opposite regions, and into the Different suits of Vallies of the same District; the Gradual and Easie *Ascent* in some places, and in others the quick and præcipitous Fall of the hills; their even smooth and *Plain-like* manner of forming their Ridges, both the greater, which are the Summits or highest elevations, that divide the Country into it's separate Regions; and the lesser, that parcel it out into it's minutest Lobes: These and many more; but above all the surprizing *Turn* of the whole, that
 even

even in the places of it's Greatest roughness and shade, like a Picture designed for *Distant* view, looks easie, harmonious and soft.---These are things that tho' they be the pleasing subjects of my frequent Contemplation, and constant Admiration, they are too High for my expression; nor (to magnify my own performance do I say it) can I think that the most exquisite Draughts-man could express these subjects in a finished manner to the Life, tho' he were allowed as much room for only five or six miles round my Center, as I have for sixteen or twenty; so various and sublime is the face of Nature; so weak and insufficient is Art.---*Sed in magnis voluisse.*---

What then! shall I stand confess'd of Omissions and Errors, and beg farther time for Correction? If these be material and in any significant manner break the Proportions and Design of the Plan, this can't be done without mounting an Entire new Copy; and I am thoroughly satisfied, that, whatever Inclination I might have to the work, it is high time for me to have done with so laborious and chargeable an Amusement. If they be only some little Local mistakes about the distances and bearings of some of my marks; or Omissions of some of the Lesser sections of the vallies and rills of Waters; the Correction of these is not answerable to the trouble and pains of amending them, as they are either in the greater Tracts of the Woods, or in the Marthes; thro' which, as no Business calls, nor any Road generally lies, I have no opportunities of surveying them. But neither would these things affect the General Truth of the Plan, tho' they were left out, or what is better, if (as they are) supplied with my best Conjectures, according to the stated method of Distribution within their certain and well-known bounds. In a Word, I am so sensible of the Number, tho' not the Importance of what Errors there must still re-

main in this Chart, that I can myself undertake to point out more Real ones than any one else can see or perhaps imagine. Yet I have, after all, the Satisfaction that I proposed to myself, of being well *contented with the Performance*, as I know of none that *essentially* affect it. I have truly set out all the General Divisions, and Divided them into their minutest parts by their true natural philosophical Boundaries: I have collected all the significant Materials both of Nature and Art, and have given them their proper Situation and Aspect; I have digested them into a real, regular, Geometrical Plan; which in the General is quite agreeable, and in none of it's particulars very wide from the truth.---What hinders then, but that I may with Submission affirm, that I have *completed* my System and render'd it intelligible to every Reader?

Errors Imaginary.

I despair not therefore of pardon for even my Real, much less for the Imaginary Errors; which many, for want of their own just Observation, will be apt to impute to my Ignorance or Indolence. And I crave such Allowances only as are usually made by all candid Judges, who consider the Difficulties of executing any Material Scheme. And if any one be inclin'd to qualify himself to make a true judgment of this, he may please to amuse himself for a while with a Survey and a Delineation of one mile round his own house, and then proceed to another; and, if he be not yet satisfied, to a third. By this time he will find his materials so multiplied, that he will feel his work grow very much upon his hands: And if by this his laborious but bewitching Curiosity he should be excited to a farther Survey; what with the Growing extent of his work, and the immense Number of it's far-fetch'd particulars he must explore, and the eye he must have all the while to the final Concatenation of so many (as yet undigested) Systems into one concerted Plan; he will be
like

like one launch'd out into the wide Ocean; and in the midst of this Confusion will be too soon sensible that he has a very great deal to do, but never how much until he be got to the end of his uncertain Voyage.

Besides---To me, the Novelty of the work did not a little enhance it's Difficulty. Every thing was intricate and unravell'd; my whole Design was Unexampl'd; I was to pick *Method* and order out of a seeming endless Confusion, and without a Guide to beat *untrodden* Paths, which at best perplex, retard and tire the most eager Traveller. I was to Form from the general Face of the country, of which I could then have but a very Imperfect notion, a Prototype; an *Original*, towards the composition of which I could not have the help or Authority of one single Stroke to *Copy* from any thing (so far as I know) as yet Extant: or in which the most ingenious and willing Assistant could contribute one effectual Observation. The gross or main part of the Inhabitants, tho' residing some of them many years, some all their lives upon the Spot, never seem'd to have any the least notion of what I was about; but terminated all their Curiosity (those of them that had any) in a pretty good *Map*, and a Rout of the *Roads*. And as for those Few, those very Few indeed, who enter'd into the Philosophical Design of it, the Subject was so New to them, that they had nothing but a general notion of the Vallies and the Waters; and were so far from being able to help me to any particulars, that they had no other Conceptions of the exact Regularity of my System, than what they received from my Discourses, or from those little rough Draughts of particular places in their own neighbourhoods, that I had now and then shown them. Neither indeed could any one's Description of any place have given me an Idea of it sufficient for it's Delineation, or an Authority good enough to receive

The Work New.

ceive it as an Actuality or matter of Fact: but my own eyes must be employed, my own Observations must be made (and in many places frequently of the same Spot in different Views) before I could Register it in my Chart for Truth.

Nor may I claim less Indulgence from my Station in life. I was not a Man in leisure, or at liberty to set myself Entirely to this single work. I have been all the while (these ten Years) engaged in no small share of employment in a Profession, that is too well known by those that exercise it, not to want it's daily Fatigues and cares; and altho' even this, by my continual Journeys thro' all parts of the Country, has given me great opportunities of Observing, yet could it not find me Any to make that Regular Survey that would have Facilitated the work. To all this it may be added, that no Lucrative view was at the bottom of my Labour. I was not employed by my Superiors, Lovers of natural Knowledge, or aided with proper Assistance, nor encouraged with suitable Appointments. It was from the very beginning All amusement. Accidental Observations presented me with my first Ideas, Curiosity excited my Pursuit, and Resolution carried me on, till I had made myself so well acquainted with the Face of Nature as to give you this Pourtrait of it; which when I had done, both my self and other better Judges thought this *First* Performance of it's kind too Good to lye hid in a private Closet, or perhaps a few years hence be quite lost in the Oblivion or Destruction of old Household Lumber.

To conclude, I am afraid I have more need to Apologize for the *Length* of this Discourse than for the Errors of the Chart; for it is insensibly swell'd out into a much greater compass than I at first intended: and it is no easie matter for a willing Pen to refrain from so Copious a Subject, as would be much fitter for a large Volume. I had always design'd

as

as soon as the Chart was Publish'd, to set myself about the *Natural History* of the Country adapted to this Plan : and I had by way of Præparation collected many materials for this work, but have not as yet digested them into any order. In this, the curious Articles of the Elevation of the Plan ; the Generation of the Waters ; the Rise of Springs and the Formation of our Rivers ; the original Cause and the present Use of the Systems of the Vallies ; their different Expositions to the Winds ; the Inosculation of their Vessels ; the Communication and Purification of Atmospheres ; the several Soils and Productions of the different Regions ; their Minerals and Mineral Waters ; with several other Philosophical Subjects, needless now to be mention'd, were design'd to be treated of in no slight manner : in the course of which I should have had a particular Eye to the State of Endemial Diseases, and the Practice of Physick among us. And here would probably have appear'd something very *Different* from the Natural History that we as yet have of this, or any other Country. But as I have entirely laid aside all thoughts of that pleasant Work, or any other entertainment relating to this Chart ; I could not help, when the Pen was in my hand, now and then making a little Digression from the Intended brevity of my Explanations ; and giving a relish to this bare and tasteless Description of the Vallies, by a Small hint or two upon some of these particulars : in doing of which, it had been much easier for me to have launch'd out into a wider field, than to keep myself even within these bounds.

It is Impossible to say or even to conjecture how *Various* Use of the Chart. the *Uses* of this minute Description of the Surface of the Earth may be. Here is a *Fund* of Natural Observations, a systematical Collection of undoubted Facts, that regard the Situation, Construction, Exposition, Atmosphere, Waters and Soils of this whole country ; more distinctly and Intelligibly Deli-

neated in *four* sheets of *Atlas* Paper, than could be in words Described in a Large Volume. And These are things that all of them absolutely concern the Life and Ease of it's Inhabitants. And tho' at first sight this may seem to some to be only a Local Draught of this Part of Britain, it is really the *Specimen* of a Plan for the study of Nature all over the World. Here Philosophers and Artists, of most sorts, may exercise their talents in their search after natural Knowledge; but *Agriculture* and *Physick* stand Foremost to our view, and with open arms invite us to their Intimate acquaintance. Of these the Latter only is my Province; and it concerns me to have it understood, that I have not been filling up the Intervals of my Time with insignificant Amusements, foreign to the nature and Design of my Profession, whilst I have been taking so much pains to arrive at a thorough knowledge of the country, wherein I exercise my Art.

Hippocrates, the most universal and judicious Observer of any Age or Place, who knew what rank'd *Him* above all the Professors of his time; and (to mention no more of his worthy successors) *Galen*, the best Expositor of his Sentiments, who follow'd his steps into the second place of Wisdom and Honour, make This part of natural Knowledge the very Foundation of a judicious and successful Practice, which cannot be prudently regulated, without understanding the “ Constitution of the country, the Seasons, the People, and particularly their Endemial Diseases.” These are the Cabinet Secrets of the Physiological branch of our Art. And perhaps it was from his observing how supinely negligent most of his cotemporaries were about these Important Studys, that he so strongly insists upon it, that * “ Physick is,” not a Gallimawfry of wild Conceits and uncertain Operations, fit only for those
who

*-De veteri medicina.

who “ *per fortunam Omnes ægrotorum res gubernabant*; but
 “ a Real Art, built upon solid foundations, and that there is as
 “ much Difference, *tum manu tum mente*, betwixt it's True and
 “ it's Pretended sons, as there is amongst Vulgar Artificers.”
 And after he has copiously enumerated the many Quali-
 fications, that are necessary to form a Real Physician, he can't
 forbear (tho' a very humane and Candid man) openly cen-
 suring these assuming common-place Physicians, who, like
 a Pest, were so rife in his time: very gravely but wittily calling
 these “ † Persons, *Tragedy-Actors*, who play'd their Parts
 “ indeed *sub habitu & personâ illorum quos referunt; illi autem*
 “ *Ipsi vere non sunt.*” Who tho' they had thro' the credulity of
 the Vulgar, by the help of a few common Recipes, and more
 Politick Fetches, thrust themselves into Reputation; had
 withall by their Ignorance and Low *crafts* utterly Dishonour'd
 their Art, and render'd it *omnium longe vilissimam.*” But he
 concludes, that notwithstanding the great bustle these Agita-
 tors made in the World, that the “ *Medici* were indeed *Famâ*
 “ *& nomine multi, re autem & opere Perpauci.*”

But the Real sons of Physick, who from their natural Love
 to mankind have heartily and laboriously præferr'd the Im-
 provements of their Knowledge, above their own ease and
 Profit, have a more honourable Reward. Their Art lives
 in their Works, and their Names are Rever'd in their Ashes.
 But these Theatrical Gentlemen have found no Record
 in Posterity; They were forgot as soon as they put off their
 Buskins.

I have now at last nothing now more to do than to ac-
 knowledge without any reserve, all my faults of Style and
 Diction thro'out this Hasty Pamphlet. My Original Chart
 was at the Engraver's when I determin'd to write it; and I
 could not set about it till I had from him the first Proofs of
 my

The Style.

my Plates. It would have been impossible for me to have enter'd into the particulars of the Plan upon the strength of my Memory; nor could some old erroneous Copies that I had by me much Assist me, as they were so Different in many particulars from the True one. And when I had consider'd it well, in what manner I should treat my Subject; I found that nothing Less than a regular, Universal Description would be Sufficient to acquaint my Readers with the true Design and right Use of the Chart. The Time then that I had to compose and print this Discourse, that it might be ready to accompany and not farther retard the Publication of the Chart at Christmas, (when I fully expected it would have been ready) was too short to permit me to be Curious about my Words and Periods, or to aim at any thing beyond being intelligible. Nor indeed, if I had been so disposed, would the Nature of this Discourse have admitted of an easie flowing copious style, as this minute Division and Graphical Pourtrait of the Vallies and their Waters, that diversify and distinguish the several Parts of the Surface of our Earth, differ but little, if at all, from the Anatomical Descriptions of the several Systems of the Arteries, Veins or Nerves, that are with such exquisite Art distributed all through our Bodies. The Terms that belong to their Origination, Course and Insertion are, like those, not very various; and they are too precise to be enlivened with a variety of Allusions, Metaphors, Hyperboles, or any other Rhetorick, than a few significant words to recommend them to the Understanding; in which, I hope, the *attentive* Reader will not find me very deficient.

POST-

P O S T S C R I P T.

THIS Chart was intended at first to be done in two Colours; *Brown* to express the Arable, and two shades of *Green* for the Marshes and Down-Lands. But the Tryal that I made of this way in some of my *Specimens*, fully satisfied me, that with the utmost care of the Printer it was a very Difficult matter, to keep the colours to their Proper places, even in so small Plate. It would be therefore, we concluded, an absolute Impossibility to deliver perhaps any one Sheet from a Plate of near thirty Inches almost square (which is the size of each of my Four) without frequently flubbering the two Colours into one another, and Confounding the Print. Wherefore, by very good advice, I resolved to do them all in Black and White. But as I have the favour of some Subscribers for more than one Copy; and I find several others of them best pleased with a Green shade, I have done a few of them in That colour.

As my First Subscribers have Reason from my Printed Proposals to expect a "List of their names *round the Margin of the Chart*," it is fit I should give them a sufficient reason for my omitting this Article. I find the Printing their names very much Disapproved by some, by others utterly Forbid; and others are so indifferent about it as to leave it entirely to my own Inclination and Conveniency: As for the Rest, I hope their Candour will admit of the following Excuse. In my First Proposals, the Chart was to be done by a Scale of one inch and *four tenths* to each mile, according to a Specimen therewith deliver'd; but when I had determin'd not to publish That, but a *New Copy*, for reasons given in this Discourse, I extended my Scale to *six tenths*. This not only fill'd up the very Largest Paper I could get,

so as to leave no Margin fit for such a collection, but it made so great an Addition to my Expence both in the Engraving, and the Paper, that I hope they will accept of this as a sufficient amends for the want of that Ceremony. And indeed in this the greatest Mortification falls to my own share: for tho' my List is not so long as might be expected from the Nature and Novelty of the work; and altho' as yet, even some considerable Names are wanting in this Neighbourhood, who doubtless are not averse to encourage a Performance that does some Honour to Their country; yet are my Subscribers neither too few nor too mean to make a creditable appearance; as I have many both Honourable and Learned Patrons, whose Great names would give a Grace to my Work, and recommend it to the world after it's Publication. Their favours I receive with all Esteem and Devotion. And I return all my kind Subscribers my sincere thanks for the Countenance they have given me; and more especially some few of them, whose hearty Zeal for both the Author and his Chart, has considerably promoted it's Interests, and already assured him of something more than his Labour for his Pains.



E R R A T A.

- Page 6. For *within*, read *with in*.
10. For 20° 10, r. 14° 10.
11. For *West-Scale*, r. *West-Swale*.
13. For *Bede's*, r. *Bede's*.
24. For *Useful*, r. *Usual*.
41. In Line 28th, after *two miles*, r. *and a half more*.
47. Line 27th, after *Stour*, r. *that of*.
50. Line 11th, after *about*, dele *of*.
53. Line 3, dele *I think*.
57. For *busy*, r. *buisy*.
58. Last Line, for *Cottages*, r. *Cottagers*.
72. For *Chilton*, r. *Chilson*.
84. For *Eastware*, r. *East-Wear*.
86. Line 4th, after *and*, r. *then it*.
92. For *Dereham*, r. *Derham*.
— Line 15, for *Collumn*, r. *Column*.
93. Last Line, after *could it*, r. *have been*.
— Line 30, after *some Hills*, r. *at Halifax*.
93. Dele *Abridgements of the*.
94. Line 28th, after *Mouth of the*, r. *River thro' the*.
95. Line 25th, after *a defect of*, r. *any thing under*.
99. In the Margin, at Line 4, r. *Errors Real*.
107. Line 28th, dele *the second now*.

The Rest are mistakes of Lesser moment about the Great and little *Initial* letters, and some false *Punctuations*; the principal of which are to be seen in the first sixteen lines of Page 32. all which the Candid reader will please to correct as he reads them.

Shortly will be Publish'd,

A Philosophico - Chorographical Chart of

E A S T - K E N T.

Containing a Graphical Delineation of the Country Fifteen or Sixteen Miles round the CITY of CANTERBURY.

Within these BOUNDS.

Sittingborn, Middleton, Bobbing; King's-Ferry, Minster, Worden, and Shellness in Skepey; Feversham, Whitstable, Reculver, Margate, North Foreland; Ramsgate, Sandwich-Bay, Deal, South Foreland; Dover, Folkstone, Hythe, Lynne; Aldington, Mersham, Kingsnoth, Great Chart, Hothfield, Pluckley, Boughton Malherb; Sandway, Lenham; Frinsted, Bredgar, Borden; and thence round again to Bobbing.

In this CHART are described, as the PRINCIPAL Part of the WORK, The Rise and Progress of the Vallies; the Directions of both the Greater Chains of Hills, and the Lesser Ridges; with their several Elevations, or different Perpendicular Heights; as well *Absolute* from the Sea at Sandwich-Bay, as *Relative* to one another in many the most Remarkable Places of the Country.

Also, The Sea, Creeks, Bays, and Harbours:

The Course of Rills, Brooks, Ailbourns and Rivers:

Springs of Fresh and Medicinal Waters; Pools; Woods; Quarries; Gravel, Sand, and Chalk Pits; Minerals; Soils.

To which are added, by way of Ornament,

The Churches; City of *Canterbury*; Towns, Villages, Streets, Castles, Camps, Ruins. The Houses of Noblemen and Gentlemen, with many Others of less Note, and other Marks that are useful in setting off and conducting the Vallies from their Rise to their Determinations.

Also, Downs; Parks, Groves, Tolls, and Rows of Trees.

In fine; Whatever is Curious, both in Nature and Art, that Diversifies and Adorns the Face of the Earth, is herein carefully presented to the View in their proper Situation and Aspect; that the Exact Harmony of the Whole, and the Beautiful Distinction of the several Parts of the Country, may appear as in a Landskip, as well as the Main Design of the Work will allow.

By CHRISTOPHER PACKE, M. D.

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