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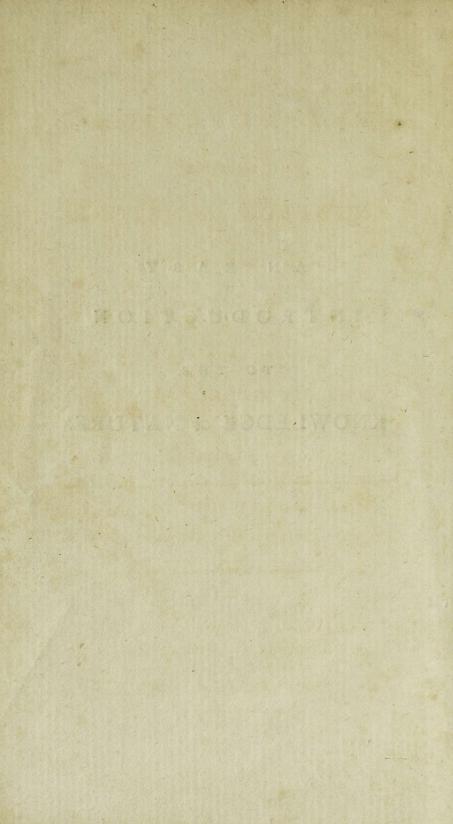


### ANEASY

## INTRODUCTION

#### TO THE

## KNOWLEDGE OF NATURE.



### AN EASY

Caroline Howaser

INTRODUCTION

#### TO THE

KNOWLEDGE OF NATURE,

AND READING THE

HOLY SCRIPTURES.

ADAPTED TO THE

CAPACITIES of CHILDREN.

By Mrs. TRIMMER.

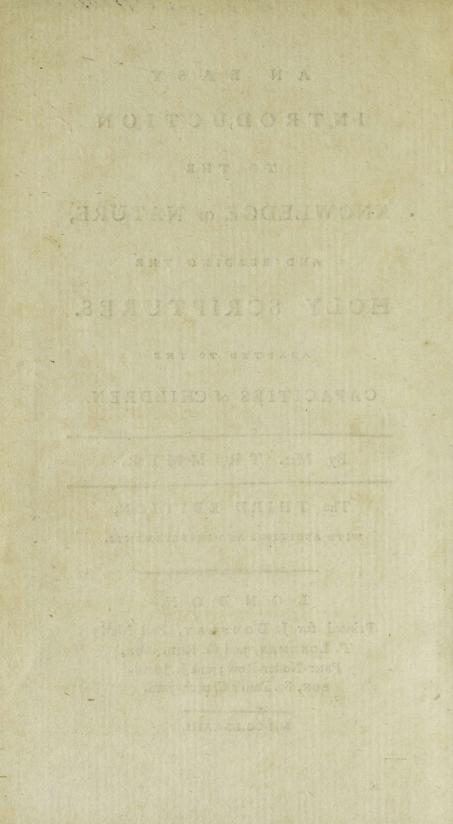
The THIRD EDITION,

WITH ADDITIONS AND IMPROVEMENTS.

#### LONDON,

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M.DCC.LXXXIII.



### TO THE

RIGHT HONOURABLE

Lady Charlotte FINCH.

MADAM,

HE purpose for which this little Treatise was composed, can alone entitle it to your Ladyship's notice, for in its execution I fear it is very imperfect; but as it is intended to lead to the most serious concerns of  $A_3$  Human

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Human Life, The Knowledge of the GREAT CREATOR and the Study of His Works, I hope it will not be thought totally unimportant.

Permit me to fay, MA-DAM, that before I ventured to produce it to the World, I had the happinefs to obtain the fanction of your LA-DYSHIP's approbation, which encouraged me to hope for a favourable reception from the Public ;

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Public; as the great fuccess with which you have educated the ROYAL FAMILY, fo evidently proves, that your LADYSHIP is perfectly acquainted with the most happy arts of winning the attention of Children, and the most proper method of conveying religious and moral In-Aruction to their tender minds.

With the most ardent with that your LADYSHIP may A 4 long

# ( viii )

long continue to enjoy every comfort both of public and domeftic Life, I have the Honour to be,

MADAM,

Your LADYSHIP's

most obliged,

and devoted Servant,

SARAH TRIMMER,

BRENTFORD, Dec. 12, 1780.

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## PREFACE.

A S it may feem unneceffary to add to the number of Books which have already been written expressly for the use of Children, I think it proper to mention, that the hint of the following little work was originally taken from Dr. Watts's Treatise on Education, Section the 2d, on the exercise and improvement of the natural powers of Children : his Words are these,

" Almost every thing is new to " Children, and novelty will entice A 5 " them

" them onwards to new acquirements: " Shew them the Birds, the Beafts, " the Fishes, the Infects, Trees, Fruit, " Herbs, and all the feveral parts and " properties of the vegetable and animal World. Teach them to obferve " the various occurrences of Nature " and Providence, the Sun, Moon and " Stars, the Day and Night, Summer " and Winter, the Clouds and the

66

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66 Sky, the Hail, Snow, and Ice, " Winds, Fire, Water, Earth, Air, " Fields, Woods, Mountains, Rivers, " &c. Teach them that the GREAT "God made all thefe, and that his " Providence governs them."

But delightful as these things are to Children, if communicated in a way that is accommodated to their capacities, they can never be brought in their early

early years to attend to fcientific accounts of causes and effects, or to enter far into each particular branch of knowledge.

I therefore thought, that a Book containing a kind of general furvey of the Works of Providence, might be very useful; as a mean to open the mind by gradual steps to the knowledge of the SUPREME BEING. For as we need only read the volume of nature, in order to discover his Wisdom and Goodness, a defire of doing his Will might from thence be excited in their minds, before they were permitted to read the Holy Scriptures, which they fhould not begin till they had been previoufly taught, that they contain the revelation which he has vouchfafed to

A6

to make of himfelf, his gracious difpenfations towards mankind, and the duties we are required to perform in order to obtain his favour.

I have never yet met with any one Book fufficient to anfwer these purposes; for though there are numbers excellently calculated to improve those who have made some progress in knowledge, they are in general too difficult to begin with, and therefore require something preparatory; excepting those which contain exemplary histories suited to their age : which, though they have a very good tendency, are not alone sufficient to form the minds of Children.

Nor have I the vanity to fuppofe that this imperfect performance will fully

## ( xiii )

fully answer that purpose ; it is only meant as a Link in the Chain of Education, where there appeared to me to be a deficiency; and I flatter myfelf that it will prepare the minds of Children for higher degrees of knowledge, and fo increase the value of some of those entertaining and instructive Books which have already been published for their use; for I am persuaded from experience, that those who can be induced to advance as far as I have here endeavoured to lead them, will naturally afpire to higher degrees of information.

I cannot pass over this opportunity of mentioning a very useful Publication, entitled Lessons for Children from two to four Years old, written by Mrs.' Barbauld, (fold at No. 72, St. Paul's Church

### ( XIV )

Church Yard,) which I think are the beft adapted for the purpole of teaching them to read, of any I ever met with. I have endeavoured to adopt a mode of expression fimilar to Mrs. Barbauld's Lessons, and to build upon the ground-work which that ingenious Lady has laid for the Instruction of Children, in a stile of familiar conversation.

Perhaps it will be thought that I have deviated from my plan of fimplicity and eafe in the latter part of this Work; but I have here taken for my guide the Archbishop of Cambray's Instructions for the Education of a Daughter, and indeed copied him in fome places respecting the distinction between the Soul and the Body. To the authority of this great name I shall only

only beg leave to add my own humble opinion, that Children may be taught these things at an earlier age than is ufually practifed; and furely in this cafe above all others, the experiment ought to be made; for if it be thought neceffary to teach them betimes the ornamental parts of Education, which can be of use only in this transitory life, how much more necesfary is it to embrace the first opportunity of feafoning the Infant Mind with those spiritual graces which are calculated to prepare them for a happy Eternity ?

Such inftructions are of the higheft importance, and most effential for all to be acquainted with; therefore arguing from the Goodness and Condescension of the ALMIGHTY, there is reason to to hope, that he will affift those with his especial bleffing, who endeavour to impress the minds of Children with a devout sense of their CREATOR, and a desire of immortal Happiness, by calling their early attention to the Works of His Providence, and the Truths of His Religion.

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# Easy Introduction, &c.

### PART I.

I HAVE been thinking, my dear Charlotte, that you and I might take fome very profitable walks together, and at the fame time that we are benefiting our health, by air and exercife, might improve our minds; for every object in nature, when carefully examined, will fill us with admiration, and afford us both inftruction and amufement; and I am perfuaded we fhall find, that nothing has been made in vain.

Though

Though Henry is fo young, he is a fenfible little Boy, and will be able, I dare fay, to understand many things, which we fhall have occafion to talk of; therefore I think to take him with us: I long to fee him, as I fuppofe he is greatly pleafed with his change of drefs! Oh! here he comes. Your Servant, Sir; you are very fmart, indeed; I could not imagine what little Beau it was, ftrutting along; I fuppofe, now you are dreffed like a Man, you begin to fancy that you are one; but though you can read and fpell, fpin a Top, and catch a Ball, I do affure you, there are a great many things for you to learn yet, and I shall be happy to teach you what I know. Your fifter and I are going to take a walk; we shall have many pretty things to look at, and talk about, therefore I dare fay you will happy to be of our party; will you not?

You

You know, my dears, in the walks we have already taken in the fields together, I fhewed you a great variety of Plants and Flowers; you have feen the Cattle and Sheep grazing, the little Birds hopping and flying about; and though I told you the name of every thing you faw, which I hope you remember, you must learn to know a great deal more about them. Charlotte is going to get herfelf ready, fo fetch your hat, Henry, and let us go into the Meadows, where I am fure we fhall foon find fomething worth examining.

Well, Henry, what do you think; is not this a charming Place? You know that it is called a Meadow: See how green the Grafs looks, and what a number of pretty Flowers! Run about, and try how many different forts of Grafs you can find, for it is now

called nowing; than come the

now in bloffom. One, two, three: blefs me, you have got eight forts! Charlotte has gathered quite a nofegay; Daifies, Cowflips, Buttercups: As for the reft, I do not know their names, fo we must fearch the Herbal, where we fhall find them, and learn what they are called.

I need not tell you what is the ufe of Grafs, becaufe you have fo frequently feen the Cows, Horfes, and Sheep eating it; but they do not eat it all, no; a great quantity of the Grafs that grows is cut down with a Scythe, like what our Gardener uses, which is called mowing; then come the haymakers, who turn it over and over again, fpreading it upon the Ground, and when the Sun and Air have fufficiently dried it to keep it from becoming mouldy, it is carried home to the Farmer's yard, and put together in great heaps called Hay-ricks and Hay-stacks.

There

## [4]

There are thoufands and thoufands of loads made every year, which ferve to feed the Cattle in the winter; for there is but little green Grafs for them then. All of it grows from little Seeds no bigger than pins heads; look at the Bloffoms in your hand, Henry; they would foon have turned to feeds.

In a Meadow where there has been Hay made, a great many of the dry feeds drop and are fcattered about, and Grafs fprings from them the next year; but if people want to make a new Meadow, they must keep fome feeds and fow them.

The beautiful Flowers which you have in your hand, Charlotte, grew likewife from feeds which were mixed amongft the Hay-feeds; for the Plants which fprung from those feeds are good for the Cattle, and ferve to give a pleasant taste to the grass. Besides, numbers of them are medicinal, cinal, that is, good to make medicines for the cure of many diforders we are fubject to.

Don't you think that Grafs is a very ufeful thing? I am fure the poor Horfes, Cows, and Sheep, would fay fo, could they fpeak; for they have no Cooks to drefs victuals for them, nor Money to buy Bread, nor can they afk for any thing they want; fo you fee their food grows under their feet, and they have nothing to do but to eat it.

Now we will take leave of the Meadow, and go into the Corn Field. Look, Henry, pray take notice, Charlotte, this is Wheat. I hope we fhall have a plentiful Harveft; but it will not be ripe till August, which is called the Harvest Month: However, I put this Ear in my pocket, which was plucked last year, on purpose to shew you you what all this which grows here would come to: rub it with your hands, Henry, blow the chaff from it, give me one of the feeds. This is called a Grain of Corn. You fee there are a great many Grains in an Ear; and look, here are a great many Ears from one Root, and yet the whole Root grew from one fingle Grain, which was fowed laft year.

[ 7 ]

The Earth was turned up with a Plough, then the grains of Corn were thinly fprinkled in the Furrows, and the Earth drawn over them with a Harrow; after they had fwelled fome time, and become foft, by the moifture of the Ground, little Roots ftruck downwards, and Stalks grew upwards, broke through the Ground, and branched out, in the manner you fee here; and produced Ears, each of which perhaps, contains twenty Grains; and fo, if you reckon all that are grown from the Seeds which came up, there may be twenty times 25

as many as were put into the Earth.

This which grows now will be ripened by the Sun, and look like that which you rubbed to pieces; then it will be cut down with a Sickle, and tied up in bundles called Sheaves, and carried to the Barn, where it will be threfhed, cleaned from the Chaff, and fent to the Miller; he will grind it into Flour, which will be fold to the Bakers, who will make it into Bread; but they muft leave fome for Puddings and Pies.

Only think, Henry, what a deal of Corn must be fown every year, to furnish Bread for thousands and ten thousands of people! And what should we do without it? for Bread is the cheapest and wholesomest Food we have; many poor people can get but little else to eat.

But Corn will not grow without fowing, as the Hay feed does, becaufe caufe the feed is larger, and must be buried deeper in the earth, therefore a deal of hard work must be done to prepare the ground for it. But my dear Charlotte, I think you have tired yourfelf; and Henry feems to have done fo too; therefore let us fit down on this mosfly Bank, and reft.

What a fine fpreading Oak is this, which ferves us for a canopy, and fhades us fo comfortably from the Sun! See what a number of Acorns hang upon it; they are excellent food for Hogs. But do not think that the ftately Oak is good for nothing but to fupply them with provision; it is of the greatest use to us. How large it is! it is bigger round than any Man ever was; it has hundreds of Branches, thousands of Acorns, and ftill more Leaves. It has great roots, which strike a long way into the B ground, ground, and fpread all round at the bottom; they keep it from being blown down, by the violent gufts of wind, which it frequently has to encounter; and through the Roots it is, that the moifture of the earth nourifhes it, and keeps it alive.

Now, Henry, is it not a very furprifing thing, that this great Tree grew at first from a little Acorn? Look, here is a young one, called a Sapling; it is fo little, Charlotte, that you will be able to pull it up yourfelf. There you fee is the Acorn ftill sticking upon the root. The Oak we fit under, probably is an hundred years old; when it is cut down it will be called Timber; the Sawyers will faw it in pieces proper to be used in building Ships, and Houses.

There are many forts of Timber Trees befides, as Afh, Elm, Chefnut, Walnut, and others. When When there are a number of Trees growing near together, the place is called a Wood; you have each of you been in one, you recollect that, I fuppofe, and what kind of a place it was. I wifh we were in one now, for it is hot walking.

But I was going to obferve, that all forts of Trees grew either from Seeds, or Kernels that are withinfide their Fruit, or else from little Plants taken from the old roots, or flips taken off from their Branches. All timber Trees grow without any trouble, for the rain waters them; but I forgot to mention the Bark, Charlotte, which is this outfide part. It is of great use to Tanners and Dyers; and the dry branches, which are good for nothing else, make chearful, comfortable fires ; fo that you fee Trees are very valuable things; nay, poor Henry would mifs them; for Traps, Tops, and Bats, are cut out of them.

B 2

See

See how the pretty birds fit finging on the branches; how glad they muft be, when it rains, to fhelter themfelves amongst the Leaves: Befides, if a heavy fhower was to come now, we fhould be happy to ftand under a Tree ourfelves, provided there was no appearance of a Thunder-ftorm; for in Thunder-ftorms Trees often attract the Lightning, which might make it very dangerous to be near them.

Don't you fmell fomething very fweet? Look about in the Hedges, Henry, and fee if you can difcover what it is; blefs me! Charlotte, what a fine parcel of Woodbines he has got; they are quite delightful: You fee the Woodbine is very different from the Oak; it has long flender ftalks, and would fall upon the ground, but that it borrows affiftance of its neighbours. Obferve how it twifts about, about, and lays hold, first of one thing, then of another. Last month there were Briar-Rofes and Hawthorns, that were very beautiful, but now they are out of Bloffom, and fee the Fruit is growing. The Briars produce Hips; the Hawthorns, Haws; they are for the Birds to eat in the Winter. There are a great many pretty things that grow in the hedges, as you may fee, and all are of fome ufe. Thefe are Brambles; they will foon produce Blackberries : Don't you love Black- { berries? you shall come and gather fome when they are ripe; but you must be fure never to eat any thing that grows wild in the Fields, without knowing what it is, because fome berries that appear very beautiful to the eye, are poifon, and would kill you.

There was a little Boy who gathered fomething that looked almost like Currants, and as foon as he had fwallowed them, his throat and stomach B 3 felt felt as if he had eaten fire; and he fwelled and fwelled, till in a fhort time he died; and yet those berries might be very good, and even valuable for fome uses.

The Farmers plant Hedges to divide and fecure their fields; for if the Cattle fhould get amongft the Corn, they might do a great deal of mifchief; befides, people would not know exactly where their own ground ended, and their neighbours began; and the Cattle would be very cold in the nights, but that the hedges fhelter them.

Don't you think this has been a very pleafant Walk, Henry? Shall I cut you a Stick? Here, take this, it is a Hazle-twig; Nuts grow on Hazle Trees: Filberts are another kind of Nut, much more delicious: Walnuts you have feen growing in our orchard. There There are a variety of fruits which are contained in hard shelis, in the same manner; as Almonds, Chesnuts, &c. The Cocoa-nut is the largest that I know of; you faw and tafted one the other day. I never faw a Cocoa-nut tree, so cannot give you a perfect description of it, but have read. that it grows ftraight without any branches, and is generally very high : at the top it bears twelve exceeding large leaves, ufed by the Indians in covering houses, making mats and other things; between the leaves and the top arife feveral shoots, as thick as a man's arm, which being tapped, yield a very agreeable liquor, called in the East-Indies toddy, from which Arrack is made; but frequent tapping deftroys the tree : thefe fhoots or branches put forth a large clufter or bunch of Cocoa-nuts, to the number of ten or twelve.

B 4

Three

Three times a year the Tree yields fruit, which is as big as a man's head; but there is another fort no larger than your fift, which they make punch-ladles of in the Weft Indies.

It is aftonishing to think what a quantity of provision and useful materials these Trees supply; they grow in the East and West-Indies, and in Africa.

There is another fort of nut called the Cacoa; this grows in the Weft-Indies, and South America. The tree which produces it is fomething like our Cherry-tree, and the Nut about the fize of an Almond: there are feeds withinfide, which are made into Chocolate, with the addition of fome other ingredients. The beft fort of this nut is imported from Carraca.

I begin to fear you will be tired; we must therefore think of returning home, but we will go through the Barley Field.

Observe;

[ 17 ] Observe; this is very different from Wheat; the ears have long, hairy spikes, which are called Beards. Do not put them in your mouth, for if you do, they will stick in your throat and choke you. Barley is fowed in the fame manner as Wheat is, but does not make such good Bread; it is however very useful to us, for after it has been threshed, it is fold by the Farmers, in great quantities to the Malsters; who pour Water upon it, which makes it sprout; then they dry it with hot Cinders, and it becomes Malt;

with the addition of a great deal of water, and fome Hops, to give it a pleafant bitterifh tafte, and keep it from becoming four, it is brewed into Beer, which is one of the comforts of life, and helps to give the poor Men who drink it, ftrength to do their laborious work. Barley is alfo good to feed Chickens, Turkeys, and other Poultry.

B 5

Hops,

Hops, you know, grow in Gardens and Fields, which are from thence called Hop-Grounds; and run up long poles; when they are ripe they are gathered, dried, and fold mostly to Men called Hop-Merchants.

Now we are come to a Field of Oats, pray look at it that you may know it again from Wheat and Barley. The poor Horfes make their Meal of Oats and Hay all the Winter, and when they are kept in Stables they eat them in Summer too; fo that you find Oats are very ufeful.

We have in England another kind of Corn, called Rye, of which Bread is fometimes made; but this is inferior to Wheat.

Some Countries do not produce Corn like what grows here, but are in general fupplied with fomething that partly anfwers the fame purpofe, though though I believe all are glad to get Wheat, if they can purchafe it; and great quantities are exported from England, France, &c. in plentiful years, which is fold to great advantage.

The Grain which is called Turkey Wheat is very different from ours. Its ftalk is like a Reed with many joints, and grows to the height of five or fix feet; out of the joints fhoot the ears, which confift of a great number of grains, each about the fize of a Pea, enclosed in coats or huses, which burst open with the heat of the Sun, and then it becomes quite ripe.

Millet I believe comes from Turkey. Rice grows in the Eaft and Weft Indies. I need not tell you, for you already know by experience, that they make delightful Puddings; and I dare fay you think Rice-milk is excellent food, and that it is right to let those People who B 6 furnish Anon com

furnish us with fuch good things have a little Corn in return.

In Countries where there is no Grain to be had, the Inhabitants are under the neceffity of eating Roots or Fruits; and even in fome parts of our King's Dominions, the poorer fort of People are obliged, from the barrenness of their foil, and extreme poverty, which prevent their either cultivating or purchafing Wheat, to eat Cakes, Puddings and Porridge made of Oatmeal; and initead of a good dinner of Meat and Bread, are glad to fatisfy their hunger with Potatoes alone. How happy therefore, my Dears, ought we to think ourfelves, who have never known the want of Bread. I hope you will remember this, and let it be a rule never to waste what fuch numbers would be glad to have. Even the Crumbs which you accidently let fall, might, if collected, afford a hearty meal for a little Bird, and make him merry

merry for the whole day; or would ferve to divide amongft its Neftlings, which might otherwife open their mouths and chirp for food many a time, whilft the Parent Bird was feeking it with weary wings. I was very angry with you, Henry, the other day, for flinging Bread at your Sifter; but I hope you will never do fo any more, now I have informed you what a bleffing it is; for I have feen perfons who wantonly wafted Bread, live to feel great diftrefs for want of it.

Can you tell me, Henry, what grows in this Field? Why they are Turnips. I will pull one up. This root when it is boiled is very wholefome, and excellent fauce for Mutton, Lamb, and other Meat: there is a great deal of Turnip feed fown every year for our tables, and likewife to give to the Cows, being cheaper than Hay.

Some

Some Fields are fown with Potatoes, numbers with Carrots, a great many with Peafe and Beans, others with Hemp and Flax, which are very valuable commodities; when I have an opportunity I will fhew you fome. The stalks of Hemp and Flax, after they have been beaten, and properly prepared, are spun into Thread, of which all Linen Cloths are made; they likewise furnish the materials for all kinds of Ropes and Cords. That fine Cloth which your Frock is made of, Charlotte, once grew in a Field, and fo did that of Henry's Shirt. It is made in Ireland and Scotland, but a great deal of the fame fort is made in Flanders.

Flax is alfo fpun into exceeding fine Thread, for weaving of Lace, and working upon Muslin.

Instead of these Plants, they have in fome Countries, particularly in the East

East and West Indies, Cotton. Of this they make Muslins, Dimities and Callicoes. Cotton is a kind of down that encompasses the feed of a Tree, called the Cotton Tree. It grows in Pods about the fize of a Nut; as they ripen, their outfides become black, and the heat of the Sun makes them fplit open; they are then gathered, and with a proper machine the Cotton is feparated from the feeds, and afterwards spun for the purposes of Weaving. So you fee, my Dears, there are variety of materials for Clothing; and the ingenuity of Mankind has invented many ways of applying them to useful purposes. Even the very bark of Trees is, with incredible labour and industry, fometimes converted intocurious Cloth by Savages, who to us appear extremely ignorant; and there are others who weave themfelves ornaments and garments of Net-work covered with Feathers.

Besides

Befides what grow in the Fields, which belong to the Farmers, the Gardens afford many excellent things. There are Cabbages, and Cauliflowers, Brocoli, Salads, Endive, Cucumbers, French Beans; in fhort, a hundred things very pleafant to the tafte, and extremely wholefome.

Befides, you know there are Fruittrees, the names of which, I fancy, you are intimately acquainted with; Currants, Goofeberries, Apples, Pears, Peaches, Nectarines, Plumbs, Grapes, Apricots: Don't you wifh they were all ripe, Henry? Then, what excelcellent tarts we could make! and what feafts we fhould have! Well, have a little patience, my Dear, they will foon be ripe, and then you fhall have plenty; but you muft not eat them before they are ripe; for they will make you very ill.

I knew a little Boy, Henry, who used to look as fresh and rosy as you do, do, and run about, and be merry all day long. His Mamma had a great Garden, and she told him not to gather the green Fruit; but the little greedy fellow would not pay attention to what fhe faid; like a filly Child as he was, he thought he knew better than his Mamma, fo he stole in unperceived, and eat the green Goofeberries, and Currants, by which means his Stomach being filled with nafty trash, he entirely lost his appetite, and his rofy Cheeks became as pale as Death; at last Worms, live Worms ! came in his bowels. They were in the green Fruit, but fo fmall that he could not fee them, and he was taken very ill, and had like to have died : So when all the good Children were eating ripe fruit every day, he was lying fick a bed, and did not get well before it was all gone .- Was he not righly punished for being fo undutiful and greedy ?

You

You remember, my dear children, how very beautiful the Fruit-Trees looked a little while ago, when they were in full bloom; the bloffoms are now gone, and the fruits grow in their ftead; they will get bigger and bigger every day, till the heat of the Sun ripens them, and then they will be fit to gather.

Apples and Pears will keep all the Winter; but the other Fruits will become rotten, unlefs they are preferved, by boiling them up with Syrup made of Sugar and Water; or elfe dried; fo we muft fpeak in time to the Houfekeeper, that fhe may preferve us fome Damafcenes and Goofeberries for Tarts, make Marmalade of Quinces, preferve Apricots, and make Currant-jelly, and Rafberryjam.

Currants, Grapes, and Goofeberries will make Wine; but that is not at all good for little Boys and Girls; they [ 27 ]

they can be merry enough without it; and Sweetmeats must be eat very sparingly, or they will make you sick, and spoil all your teeth, I assure you.

When we can get no ripe Fruit, a little Currant-jelly, and other things of that kind are very agreeable; but as for Sugar Plumbs, and the reft of thofe pernicious meffes, they anfwer no purpofe in the world but to make people difrelifh what is wholefome; and when they have loft all their teeth, by indulging themfelves with them, it will be too late to refolve against eating any more; therefore it is better to prevent the mifchief, by not eating them at all. I am fure I would not part with one tooth for all the Sweetmeats in the World.

Charlotte, if you are not tired, my Dear, we will go into the Flower-Garden : As for Henry, he is too much of a Man to complain ; nay, I am ready dy to believe he could keep upon his feet from morning to night. Come, Sir, take the key, and open the gate. This I think is the most delightful Place we have feen yet !

What fhall we look at first? There is fuch a variety of Beauties that one knows not which to prefer; you admired those in the Fields, but these exceed them.

Look at those Tulips! Examine those Carnations! Observe that bed of Ranunculas! And then admire that stage of Auriculas! The whitenefs of this Lilly exceeds that of the fineft Cambrick. This blue Flower is a Convolvulus; it is very like the Bines that grow in the Hedges, only they are of a red colour. Pray, Charlotte, gather one of those very. little Flowers; I have forgot its name; but whilst one sees it near it is as beautiful and curious as the large ones. Now turn your eyes to that noble Sunflower! that elegant Holyoak!

lyoak ! that glorious Piony !—I beg of you to gather me one of those charming Roses : how sweetly they fmell ! get me also a little Sprig of Jeffamine, and one Honeysuckle, for I cannot tell how to leave all these fweets behind me; but I will not permit you to gather many, because it is a pity to spoil them. The Gardener brought us fome to dress our rooms with this morning, and I know if you should pluck any they would foon be dead in your warm hands, for nothing but water will keep them alive.

Have you taken notice that every Flower has different leaves from the reft? That fome of them are variegated with all the colours you can name, and polifhed in the higheft manner? In fhort their beauties are too many to be numbered; and when you come to be able to read books of natural natural hiftory, you will be aftonished to find how much can be faid about them; but you are too young to understand them at prefent: However, I must not forget to tell you, that all Flowers grow either from seeds, or little roots taken from great ones.

None of those which grow here, would grow wild in the Fields, becaufe the earth there is not rich enough for them. There is a great deal of trouble to make fome of them grow at all; the Gardener is obliged to do many things, or they would wither away; and particularly he must water them properly; for Earth and Water are the fame to the Trees, Plants and Flowers, as victuals and drink are to us; but as they are fixed to one place, and can neither fetch nor ask for it, it either comes to them in Rain, or the Gardener pours it on them with a Watering-pot.

Some tender, delicate plants will grow only in very light Earth, for they could not get through hard ground, any more than you could break through a ftone Wall. Other plants are ftrong and ftiff, therefore light earth would crumble away, and leave the roots bare, fo they grow best on clay: Some require a great deal of Water; nay, grow even in Ponds and Ditches; others will thrive only in fandy Ground. Many curious plants are kept in Green-houses; they would not grow in the open Air in this Country, because they are brought from Foreign parts, where it is hotter than here: If you were to go to a place a great deal colder than this, you would not be able to bear it like those who always live there.

From what I told you just now, my Dears, you must understand, that there is

is not only great variety in what grows out of the Ground, but even in the Earth itself. Look at the walks, fome of them are of a yellowish red colour. That is Gravel; does it not make pretty Walks ? It is exceedingly good for the Roads likewife, Henry, which would foon be very bad where there are a great many Carriages continually going, if they did not lay gravel upon them to keep them in repair. Of another kind of Earth, Bricks are made, which are afterwards used in building Houfes, Walls, &c. Chalk comes out of the Earth. That is very uleful to lay upon fome forts of Land, in order to make what the Farmer propofes to fow there grow the better : It is likewife burnt to make Lime of, which, mixed with fand, makes mortar for the Bricklayers to fasten their Bricks, for they would tumble down if they were not cemented together. Stone and Marble are dug out of the ground. When

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When they find a great deal together, they call the place a Quarry. Some fine Churches and Caftles are built of Stone. Marble is ufed for Chimneypieces, Slabs, and ornaments in elegant Houfes.

Coals are likewife dug out of the Earth, with which we make Fires to warm us, and drefs our Victuals. Oh! how we fhould go fhivering and fhaking about if we had no Fires in the Winter! And what would Meat, and Puddings be good for, if we could neither roaft, boil, nor bake? for we could not get wood enough for those purpofes.

I have not yet told you half the riches that are in the bowels of the Earth. Out of it are dug Gold, Silver, Copper, Lead, Iron, Tin; thefe are called Metals; look at my Watch; this is Gold. Guineas and Half C Guineas Guineas are likewife made of it, and it may be beaten into leaves thinner than paper. Did I not give you fome, Henry, to gild your Oak-apple?

With Leaf-gold they gild Wood; the Picture Frames in the Drawing-Room appear very fine, but are only Wood covered with those thin Leaves.

Gold is the most valuable of all Metals. This Shilling is made of Silver, which though inferior to Gold, is yet much efteemed. It is used for Coffee-pots, Candlefticks, Waiters, Spoons, and an hundred other things, which people of fortune make use of. Lead is very heavy; there is great plenty of it to be had, and it is of the utmost fervice to us; for it is made into Cifterns to hold Water, Pipes to convey it from the Springs; Gutters to carry the wet from off our Houses; Weights, and a variety of other conveniencies. Our Saucepans and Kettles are made of Copper, which

which would be very unwholefome if they were not lined with Tin; which is a whitish metal, softer than filver, yet much harder than lead. We have many mines of it in England, and fend a great deal of it to foreign countries. Half-pence are made of Copper. Iron is one of the most ferviceable things we have; all kinds of Tools that are used in the Fields and Gardens, are partly made of it; likewife most of those which are employed in different Trades, have generally fome Iron about them; in fhort, it would take up a great deal of time to tell you the whole of its value. Steel is a kind of Iron refined and purified by fire, with other ingredients; it is much prized too. Our Knives, Sciffars, Razors, Needles, and many articles befides, are made of it. out to been told enoy Stud

All kinds of precious Stones likewife are found in the Earth; Dia-C 2 monds monds, Rubies, Emeralds, Topazes, &c. They do not look fo fine when they are first dug up, but there is a deal of patience and labour required in cutting and polishing them. Look at the Diamonds in this Ring; you fee they are cut with a great many fides, and the light falling on them makes the appearance of fuch a variety of beautiful colours.

Now you fee, my Dears, that every thing, when we examine it, is curious and amufing: None need go fauntering about, complaining that they have nothing to divert them, when they may find entertainment in every object in nature: But I am fure, if you are not tired, you must be hungry, and I fear the dinner will be fpoiled, fo let us make haste into the house. You have been told enough to employ your thoughts till to-morrow, when we will take another Walk, if nothing prevents us.

Good

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Good Morning to you, Charlotte, have you feen Henry yet? I did not expect you quite fo early; but hope it is a proof that my Inftructions were agreeable to you Yefterday; pray fee whether he is up. Are you not afhamed of yourfelf, you little lazy Boy, for lying in bed fo late? I was obliged to fend Charlotte to call you. Your Sifter and I longed to be walking, let us therefore lofe no more Time, but be gone.

There is the Dairy-maid milking the Cows. How comfortable the Cattle look, grazing in the verdant Meadow ! I dare fay the Herbage is as pleafant to them, as Apple-pie is to you. See what charming thick coats they have got. As Beafts cannot make themfelves Clothes, they have what anfwers the fame purpofe growing on their backs. All Cattle have four  $C_3$  legs; legs; they do not walk upright, for that pofture would be both painful and inconvenient to *them*, whofe food is on the ground, as they would be always ftooping, which would tire them fadly; and had they only two legs, they could not move their long heavy bodies with them. Obferve what hard hoofs they have got. If they had not, their poor feet would be torn to pieces without Shoes. Their great Horns ferve them for a defence, in cafe any thing threatens to hurt them, for they cannot get Guns, Swords, or Sticks, you know.

Can you tell me what becomes of the Cows and Oxen? I am fure you cannot, therefore fhall inform you. Do not run away, Henry, fee how attentive Charlotte is.

Cows, as you fee, give Milk; a great deal indeed, which fupplies the Daries with Cream; for it is put into great difhes, and in about twelve hours hours the Cream rifes thick on the top, which is fkimmed off; then when they have got enough of it, they put it into a Churn, and work it about very faft, by which means part of it becomes Butter; the remainder is Butter-milk, which is very wholefome for little Boys and Girls.

Cheefe is made from Milk, and fo are Puddings too, with the addition of Eggs and Flour, Bread or Rice.

The Calves are the Cows little ones, and many of them are fold to the Butchers, who kill them; their flefh is called Veal.

See that drove of Oxen! do not be terrified, Charlotte; obferve how quietly they fuffer themfelves to be driven along, fo many of them by one Drover! He will drive them to Market, where the Butchers will buy them: when they are killed, their fiefh will be Beef, and their fkins will be fold to the Tanners, who will make  $C_4$  Leather Leather of them, and fell it to the Leather-dreffers; then it will be bought by the Shoe-makers, for Shoes and Boots; by the Sadlers, for Saddles, Bridles, and other things. The Horns of thefe Beafts are made into Combs, Lanterns, &c.

Look at the pretty harmless Sheep, with their innocent Lambkins by their fides. Sweet Creatures ! you also have got fine thick Coats; they are very comfortable to you in the Winter, when you are obliged to lie in the open Fields, in the Frost and Snow, but must make you very hot in the Summer. Well; a way will be contrived to ease you of them, for as foon as the fultry heat comes on, the Farmer will get you all together, and begin his Sheep-shearing; then all your load of Wool will be cut off, and you will fpring away from him, and

and run frisking and skipping about, like little boys who pull off their coats to play.

The poor Sheep would not be fo merry if they knew that they fhould be fold to the Butchers too, but that must be the cafe. Their Flesh will be Mutton, and their skins will either be Parchment, such as Mr. Green, the Lawyer, brought to your Papa the other day, and like what your Drum is covered with, Henry, or elfe Leather, like the outside of your Spelling Book.

The Sheeps Wool is very valuable indeed, for it is fold to the Woolcombers, who clean it, and poor old Women who live in Cottages spin it with their Spinning-wheels; Have you not seen Goody Newman sitting at her work, finging, and happy to think that she should be paid enough for it, to keep her from begging?

When the Wool is spun, it is called C 5 Worsted,

Worsted, and the Weavers make it into Cloth for Mens Cloaths, Flannels, Blankets, Stockings, and other things. So that Sheep fupply us both with food and raiment. But I dare fay you think it very cruel to kill the poor creatures : Indeed, my Dears, it is a pity; but if some were not killed, there would be fuch numbers, that there would not be a sufficient quantity of herbage for them to eat, and many would die of hunger. And now, whilst they live, they are as happy as can be, have fine green Pastures to feed and play in, and when they die, have no relations to be forry for them, or who will fuffer by their deaths; becaufe, though Sheep are very fond of their Lambkins while they are little, the fondness continues no longer than while they are helples: for when they have done fuckling them, and fhewn them what to eat, they drive them away, and take no Northed. more

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more notice of them. When the Butcher takes the Sheep to the flaughter-houfe, they know not what is going to be done, and when their throats are cut, they are but a little while a dying, therefore do not fuffer much. When they are dead, they can feel no more, you know. We *must* kill them, to preferve our own lives, but fhould never be cruel to them while they live.

Horfes are fent to Market, Henry, but not to be killed. Horfeflefh is not good to eat; it is Carrion, and only fit for Dogs and Crows. They are noble Creatures; That is a riding Horfe. See how he leaps and bounds now he is at liberty. But though he is fo ftrong, can kick hard, and raife himfelf up on his hind legs, he is fo gentle that he will fuffer himfelf to be mounted, and guided any way. His C 6 legs legs are flenderer, and his body not fo heavy as the Ox, fo that he can move nimbly; neither is his back fo broad, but that a man can eafily fit acrofs it. He has hoofs alfo, but as he travels fo much, they would be worn out, therefore all perfons who keep Horfes fhould be careful to let them have iron fhoes, to keep their feet from being bruifed. The Smith makes them, and nails them on, which if done cleverly does not hurt the Horfes at all.

Don't you wifh, Henry, that you could ride on horfeback? When you are old enough you fhall be taught to ride, and learn to manage a Horfe; but if you get on one by yourfelf, without knowing what to do; he may run away with you and kill you.

There was a little boy who wanted to ride, and had not patience to ftay till his Papa had bought a pretty little gentle Nag for him; but got upon the Servant's Horfe, which was hung at at the gate. He laid hold of the bridle, and could not reach the ftirrups; gave the Horfe a cut with a ftick, and away he galloped with him fo faft, that the little boy was thrown off with his head against a store, which fractured his skull, and he was taken up dead: And yet that was not a vicious Horfe, when he had a stiful rider on his back; the accident was entirely owing to the child's not knowing how to manage the bridle.

There was another little Boy, who was always running into the Stables amongst the Horses, and one day he was kicked, and had his ribs broken, for the Horse did not know that it was a little boy at his Heels.

Those fine large Bay Horses with black manes and tails, are Coach Horfes; they are stronger, but not so nimble as the others; Those with great clumfy clumfy Legs, and rough coats, are cart Horfes. There is another fort of Horfes, which are very beautiful and fwift; they run races and carry their Mafters a hunting; but it is very expenfive to keep them.

We could walk but a little way in a day, as we foon tire on foot; but when we are upon a Horfe's back, we can travel a great many miles, and fee our Friends who live at a diftance; and it is very pleafant to go in Coaches, you know; do not you love it, Charlotte ? Now these pleasures we could not have without Horses; don't you think that we ought therefore to use them well? Befides, we could not tell how to manage many things without them, for it would be exceeding hard work for strong Men to do, what Horses can perform with ease. It is extremely fatiguing to a poor Boy, with his heavy nailed fhoes, to walk by the fide of a Plough all day; but do not

not you think it would be a great deal harder to him, were he forced to draw it along through the tough ground; and how would Men be able to move heavy Waggons and Carts, and other great loads, without the help of Horfes? So I think that the least we can do, is to give them plenty of Oats and Hay, and a warm stable at night. Don't you think those People are very barbarous who ride them too hard, who whip and fpur them till they are ready to die? and yet fuch cruelties are exercifed every day; but remember, Henry, that it is both foolifh and wicked to act in that manner.

There is a poor Afs; he cuts but a mean figure after we have been viewing fuch beautiful fine animated creatures as Horfes; but do not defpife him on that account; he has great merit, I affure you, for he will do a deal deal of hard work, and it cofts but very little to keep him, as he will be contented with what the Hedges afford, or even a few dry leaves, or a little Bran; and requires no Stable to fhelter him, nor Groom to attend him: fo that poor people, who cannot afford to keep Horfes, may have an Afs, and he will draw a cart, carry panniers, nay, will not difdain to lend his back to a Chimney Sweeper. Have you not feen the little grinning rogues, with their black faces and white teeth, riding on a Jack-Afs with a Sack of Soot?

I muft not forget to tell you likewife, that Affes-milk is one of the fineft medicines in the World, particularly for any one who inclines to a confumption; many perfons who drink it get well, after they have been fo ill that they were thought ready to die. Is it not very barbarous, think you, to treat fuch valuable creatures with inhumanity? and yet it is very common

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to do fo; I am fure it would grieve you to hear how People beat and starve them frequently.

Let me look at my Watch; it is past eight; we must return home to breakfast. Who is that? Oh! it is John coming to call us, and poor Tray with him. You are mightily glad to fee us, Mr. Tray, and we are glad to see you too, for you are an honest, faithful fellow. Don't you love Tray, Henry ? How he wags his Tail, and jumps about. I proteft he looks fo pleafantly, I could almost fancy he had a fmile in his countenance. When we are in bed, and fast asleep, he keeps watch all night, and will not let a thief come near the House. When Papa goes a fhooting and courfing, Tray runs about, round the fields, and acrois the fields, and finds out all the game for Papa to fhoot; for he can smell it a great way off: Then he is fo

fo good-natured that he will let the little baby play with him, and will never be perfuaded to leave his Mafter.

Poor Tray defires no other reward for his fervices than a little food, and that he may have the pleafure of walking out fometimes with his mafter, or any body in the family. I have got the key of the Paddock, fo we will go through it, and take a peep at the Deer.

There is a noble Stag, with his fine branching horns ! Do not you admire him ? and fee the little frifking Fawns! Active as you are, Henry, I think you cannot bound like them.

This kind of Animals are only kept by those who have Parks and Paddocks properly paled in, for they would not stay in the Fields, as Cows and Sheep do. Their fless is very fine flavoured meat, called Venison.

Gentlemen often take great diverfion in hunting Stags. They turn one out out of the Park, and then let loofe a great number of Dogs, of which he is fo fearful, that he runs from them as fast as his legs will carry him; a number of Gentlemen on fine swift Horfes follow him, and are fo eager for the fport, that they leap over hedges and ditches to overtake him. Sometimes he will lead them a great many miles; but at laft his weary legs will carry him no farther, he pants with fatigue and apprehenfion, ftops, and makes an effort to repel them with his horns, but the Dogs feize on him and tear him till he dies. I fuppofe there is pleafure in hunting, but I think the poor creature fhould be allowed to return to his Park again, in order to make him amends for the terror he must have fuffered, and for the diversion he has afforded to his pursuers. siven you an sonelies.

Some-

antig like an and even ab store to an Call Sometimes people hunt Hares alfo. They go into the Fields with their Dogs, who can finell them out if they hide themfelves ever fo cunningly; and when they find they are in danger of being caught, they fpring up, and run with all the fpeed they can, and practife many tricks to fave themfelves; but all in vain, for they are generally overtaken, and fuffer the fame fate as I told you the Stags do.

I don't know how it is with the Gentlemen, Henry, but I should feel so much for the poor little frightened creature, as would destroy all enjoyment of the sport. I am sure it would delight me more to save one from its distres.

Well, now for Breakfaft.—Run into the Parlour, Henry; fee, Charlotte! there is a good bafon of milk for each of you; I dare fay your walk has given you an appetite. There is nothing like air and exercise for improving Health and Chearfulnes.

Whilft

Whilft you eat your breakfast I will tell you a piece of news; your favourite Tibb has got Kittens, Charlotte; there they are in a bafket. Call her out to lap a little milk, and then we can look at them. -- How they mew and tumble about! They cannot now fee, but in nine days their eyes will be open, and they will foon begin to play a hundred diverting tricks. When old Puss has taught them to catch mice, fhe will make them provide for themfelves, and fo far from giving herfelf any trouble about them, will grumble, and give them a good box on the ear, if they take any freedoms with her; but fhe will be a good mother to them for all that; for fhe will be extremely tender of them as long as they ftand in need of her care, and they have no reason to expect her to catch Mice for them all their lives, when they will be as clever at it as herfelf.

Mice

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Mice are pretty creatures to look at; but they do a great deal of mifchief; and fo do Rats. If we had not Cats we fhould be over-run with them.

I should never have done were I to enumerate every kind of animal; but must not forget to mention that there are a great number of wild Beasts; Lions, Tygers, Leopards, Panthers, Wolves, and others.

They have great ftrong claws, monftrous teeth, and are fo fierce that they can tear a Man to pieces in an inftant. Now, had they been amongft us like the Flocks and Herds, what havock they would have made in the world! We fhould not have dared to go out of doors. The Cows, Sheep, and Horfes would have been a conftant prey to them: but there are none here; they avoid the habitations of Men, and range the Forefts and Defarts far from our abodes.

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As their fkins make very comfortable clothing for people who live in cold countries, the Hunters frequently purfue them; for as there are feldom many wild Beafts together, and there are ufually a number of hunters, who provide themfelves with proper weapons, they frequently get the better of them.

Sometimes they are caught alive when they are young, and fhewn about as curiofities; and thofe who look after them have a way of managing, fo as to cure them in a great meafure of their fiercenefs: there is no Beaft whatever fo fierce but it may be tamed or fubdued by Men. I have feen feveral forts, particularly at the Tower of London, and read a very entertaining account of that collection in one of Mr. Newbery's little Books: I think you have got it, Charlotte; I defire you will fhew it to Henry.

I fancy

I fancy the Queen's Elephant is at the Tower. An Elephant is a moft aftonifhing creature, I believe, the largeft of all Beafts. I cannot give you a proper defcription of this animal, therefore remind me, when we are in the library, to fhew you the picture of one, but I muft tell you how valuable their teeth are. They are Ivory, and you know there are abundance of things made of that. You have feveral pretty Ivory Toys, and there are Combs and Knife-handles; in fhort, one might foon name twenty things.

Their fkin is extremely hard, and their ftrength wonderful, fo that when they are provoked, nothing can ftand before them; yet they are of a very gentle, harmlefs nature, and will fubmit to be guided by a Man. We read in hiftory, that it was formerly the cuftom to employ Elephants in Armies; and that they had little wooden caftles built on their backs, which were were filled with men who fhot from them with bows and arrows. When thefe beafts had been fometime in the battle, they grew angry, and then they trampled to death all who came in their way, and could even beat down trees, and demolifh houfes. How would you like to ride on an Elephant, Henry? Why, you would look on his back like a little marmofet on a horfe.

The Camel is another noble Beaft, we have none of them here, only now and then one, which is fhewn about as a fight. You can form no notion of him from a defcription, but I will look for a picture of him likewife.

In the countries where the Camels are, there are a great many fandy defarts; places where there are no houfes for a great many miles, nor a tree to fhelter travellers from the fcorching rays of the Sun; and yet people are under the neceffity of taking journeys D through

through them, in order to carry the goods they want to fell from one country to another : it would be impoffible for them to bear fuch heavy loads themselves, and horses would perifh with thirst, as there is no water to be met with; but a Camel will carry very great burdens, and requires no refreshment on the road; and when he gets to his journey's end, will kneel down, that his mafter may be able to reach his back to unload him; for he is fo tall, that they could not conveniently do it otherwife. I could tell you wonderful things of a hundred other creatures, but that I hope you will have curiofity enough to read about them.

If you have breakfasted, and are not fatigued, we will go into the Poultry Yard. You, Charlotte, shall carry fome Barley, and Henry fome Tares, and I am fure we shall be welcome visitors.

See

that Hen has got; and fhe takes as much care of them as a fond Mother does of her Children. Do not attempt to catch the Chickens, Henry, for she will fly upon you. Yesterday they were in the Egg-shell; she laid them in a neft in the Hen-house, fat upon them three weeks, and would fcarcely come off to eat, for fear they should perish for want of being kept warm. As foon as they were ftrong enough, they broke the shell and came out, and fhe gathered them under her wings; now fhe is teaching them to peck and fcratch; and when fhe fears that any thing is going to hurt them, she flies at it with the fury of a Lion. Poor Hen! what will you do now? There is a Hawk! Oh how the poor creature is terrified ! the little Chickens throw themfelves on their backs, expecting to be caught up by his talons, and the Hen runs about in agonies; D 2

nies; for he is too powerful to conteft with. Go, Henry, call Thomas, and defire him to bring his gun immediately. Poor Hen ! the Hawk fhall not have your Chickens. Now, we have driven him away, come and eat your Barley.

We want fome Eggs for Cuftards, Charlotte; fee if there are any in the Hen's neft. Oh, you have found fome; thefe are new laid; there are no live chickens in them yet, but were we to let them remain for the Hen to fit on, fome would grow withinfide, and fhe would hatch them. But we want eggs for many ufes, and were they all to be hatched, there would be too many Fowls. All kinds of Poultry and Birds come out of Eggs.

It is poffible to hatch Chickens in ovens. And I have read, that in Egypt this is a common practice, and that as foon as the young chickens come out of the fhell they are put under the care of of a Fowl, which, having been trained to the business, leads them about, fcratching for them with the fame anxiety that a Hen would do. This is certainly a wonderful thing; but for my part, 1 do not approve of fuch. unnatural proceedings. I am fure we may have a sufficient number of eggs and chickens in the ufual way, if we manage them properly. It appears to me a robbery, to take the chickens from their parent, and put them under a fowl, which provides for, and protects them, only because it is his business, to feed and attend little chickens. It is like taking a child from its mother, and putting it to nurse, without her consent, in a place unknown to her. But I have the pleafure of hearing, that hatching chickens in ovens has been tried in England, and rejected.

There is another foolifh cuftom, which is indeed very common here, I D 3 mean

mean that of putting Ducks eggs to be hatched by a Hen. You can fcarcely conceive the diffrefs it occa-The Hen, not confcious of the fions. exchange that has been made, fuppofes fhe has hatched her own chickens; for fhe has not fenfe to reflect on thefe matters ; therefore, when she fees them go into the water, as it is their nature to do, she is feized with the most alarming apprehensions left they should be drowned, and yet dares not attempt to follow them, as fhe is not able to fwim. I am fure you would pity the poor creature; therefore never make fuch experiments, as they only ferve to gratify curiofity, by proving, that it is warmth that hatches eggs.

It grieves one to be obliged to kill any of the poor Chickens; but as I told you in refpect to the Sheep and Oxen, were we to fuffer them all to live, they would die of hunger, and caufe us to do fo too, for they would eat eat up all the Wheat and Barley, and we fhould have neither Bread or Meat for our ufe. But we will take care to feed them well, not hunt them about; and put them to as fhort pain as poffible. I am fure I could not kill a Chicken; but fomebody muft.

The feathers of Geese and Chickens are what our Beds are filled with.

Don't be afraid of the Turkeycock, Henry, he is a faucy fellow, but has very little real courage. Turn towards him, and he will run away from you, as you did from the Man who held up his flick at you for flinging flones at him.

Chickens and other Fowls have very fharp claws, that they may fcratch about in Dunghills, and at Barndoors, where they ufually find plenty of food; befides, their feet have feveral joints to them, fo that when they D 4 fleep fleep at night they ftill hold fast round the roofts, and preferve themselves from falling. Water-fowls usually fit on the ground to sleep. They endeavour to find a snug Corner; but a little damp does not injure them.

Cocks are noble Birds, and very fierce; fometimes they will fight till they kill one another, and there are people in the world who are cruel enough to make them do it for their own diversion.

They get two of these fine Creatures, and fasten sharp Spurs to their Legs, made of polished steel; then they put them in the middle of a round place, covered with turf, called a Cock-pit, while they stand about them, hallooing, swearing, and saying shocking wicked words, whils the Cocks sight till one of them dies. Oh, Henry ! I hope you will never take pleasure in fuch barbarous sports. I can see that your tender heart is moved with the bare bare relation of it. 1 could tell you many stories of the bad consequences of Cock-fighting, which has frequently been the ruin of those who were fond of it; but hope, before you are a Man, you will entertain fuch fentiments as will effectually preferve you from the danger of practiling it.

I will tell you of another kind of barbarity which is practifed by cruel wicked boys on Cocks. On a particular day in the year, called Shrove Tuesday, they assemble in parties, and fling, cudgels at these poor harmless creatures, till they kill them. First, one little Tyrant throws at a Cock, and perhaps breaks a leg; this is mended, as they call it, with a piece of flick tied to fupport it; and then the next boy flings, who, it is likely, may knock out an eye; another blow, perhaps, breaks a wing; and fcarce a stroke fails of crushing some of its tender bones : as long as strength remains the

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the tortured bird attempts to escape from his tormentors; but continued agony foon obliges him to drop. If he discovers the least remains of life, he has still more to endure; for they run his head into the ground to recover him, as they fay; this makes the creature struggle; and he is fet up once more : a few blows now completes the cruel sport, and he drops down dead, whilft his murderers exult over him, and call themfelves very clever fellows! What do you think of fuch Boys, Henry? Is there not a great deal more pleafure in feeing the happy creature pecking at the barn door, ftrutting on his dunghill, clapping his wings, and crowing with joy, than to fee his noble courage fubdued in this manner; his bright eyes hid with a deadly film, and his beautiful plumage covered with dirt and blood ?

See

See that flately Swan, how magnificently he fails along, with his filver wings expanded, to catch the frefh breeze. And pray obferve his mate, with what pride fhe leads forth, from the neft, her new hatched Cygnets! Of all the water fowls I ever faw, the Swan appears to me the most beautiful.

That fimple looking Goofe cuts but a mean figure in comparison of a Swan. Obferve how the hiffes and waddles along! However, we mult not defpise any thing merely for its looks; Geefe are very uleful creatures, and we are in some measure obliged to them for all the learned and entertaining books we have, fince they were originally written with pens made of quills taken. from Goose-wings : besides, Geese afford us many excellent meals; for when roafted they are very good eat-This Goofe, you see, has got a ing. numerous brood of Goflings; and here is Mrs. Duck too, with a fine train D 6

train of Ducklings; now they go into the Pond, now they fwim away: They are amphibious; that is, they can live either on Land or in Water. Obferve the feet of the Geefe and Ducks. It is the fame with every other Waterfowl; they are webbed, and fo ferve like Oars you have feen the Watermen ufe to row along with.

There is another kind of Birds, called Birds of Paffage, fuch as Quails, Wild Ducks, Plovers, Woodcocks, Swallows, &c. thefe do not conftantly refide in one place, but go from country to country at particular feafons of the year. They all affemble together on a certain day, and take their flight at the fame time. Some crofs the feas, and fly many hundred miles, which is very wonderful.

Pray look at the Peacock. Did you ever see a more beautiful fight? He He fpreads his refplendent tail, which the Sun fhines on, and fhews it to perfection. There is one of his Feathers on the ground. I defire you both to examine it particularly. The nearer you look at it the more admirable it feems.—And pray pick up fome of thofe which the Pigeons and other Poultry have dropped; you will find them worth examining I would have you accuftom yourfelves to look at every thing; that is the way to gain knowledge.

Did you ever fee any gold and penciled Pheafants? They are charming Creatures. All Birds, I think, are pretty; even the Owl and the Crow are not to be defpifed when you fee them near. But if you are not fatiffied with the little information I have given you, we will read fome Books of Natural Hiftory, which contain accounts of a great variety of Birds, and are extremely entertaining.

There

There are many forts in this Country, and numbers different in other parts of the World; but I fhall not at prefent give you a defcription of them all, becaufe you must take the pains to read them yourfelf. I fhall only mention the Humming Bird and the Oftrich.

One fpecies of the Humming Bird is a little creature, fcarcely bigger than an Humble-Bee, and fo beautiful, that Ladies in the Country where they are wear them in their ears for an ornament. The Offrich is remarkably large, and fomething refembling a Goose, but taller a great deal than a Man; their Eggs are fo big, that I have feen drinking-cups and fugardifhes made of their Shells; and their Feathers are very fine. Those beautiful ones which have lately been fo much in fashion are Offrich plumes; and fo are those fine black ones which are put upon a hearfe. These Birds are t00

too heavy to fly, but they have fhort wings, which are of great use in helping them along; and they run with furprifing fwiftness.

They do not fit upon their Eggs, but leave them to be hatched by the Sun.

I must go into the House now, so pray take leave of these favourites of yours for the present.

There is little Dick Williams coming in at the Gate; I fancy he has fomething that he thinks will pleafe us. What have you got there, Child ? a Bird's Neft! oh fye upon you, to rob the poor things of what coft them fo much pains to make. The young ones, you fay, are flown; well, Henry, take it in your Hand, and I will tell you how the Birds built it.

Two of them agreed to live together, for though they cannot talk as we

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we do, they can make one another understand; fo they fet about building them a Houfe. First, they got fome fmall flicks and hay, then in a fnug place, which was not likely to be found out, they began the outfide, then they picked up fome moss and horsehair, after all they lined it with feathers, the Hen-bird laid her eggs,. and her mate fang to her whilft fhe fat over them : At laft, out came the little Birds, and away flew the old ones to get food for them. As foonas they had found any, they came: hurrying with it to the neft. When the young ones heard the found of their Parents wings, they chirped and opened their mouths, as much as to fay, " feed me, feed me." The old Birdsfed them one after the other. Sometimes the Hen fat upon them a little while to warm them, then abroad fhe went for more food; and fo the old Birds kept on till the young ones were

were ftrong enough to fly, when they went along with them to fhew them where to get food, and how they muft fhift for themfelves, and all their care about them was over. As foon as the little Birds are big enough, they will build nefts too, and do as their Parents have done.

I am always angry with those who take Birds Nests, when I think how many miles the poor creatures may have flown to procure the materials, and how hard they must have worked, with no other Tools but their Beaks and Claws to build with.

We fhould not like to be turned out of a comfortable warm Houfe ourfelves, though few of us have the ingenuity to build one. The Farmers indeed find themfelves under a neceffity of deftroying fome kinds of Birds, for eating the Corn; and hundreds are killed on that account; befides, there are great Birds, fuch as Hawks and. Kites<sub>2</sub>,

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Kites, which devour a great many, fo they have enemies enough without little Boys. For my part, I would willingly fpare them fome of my Fruit, to pay them for their Mufic, and would not have my fweet Blackbird killed, which fings fo charmingly in the Orchard, were he even to eat up all the Cherries.

You have got a Canary-bird in a Cage, Charlotte; I hope you take care to feed him well, and keep him clean. He never knew what liberty was, and therefore does not want it; nay, if you fhould turn him loofe, he would ftarve and die; befides, he could not bear the cold air out of doors in the Winter, becaufe Canary-birds were first brought here from a hotter country, and only build in houses. But should you catch a poor Bird which had been used to fly about, hop from twig twig to twig, and fing amongft the branches, he would at firft flutter, and almost beat himfelf to pieces against the wires of the Cage; and when he found he could not get out, would fit moping in a corner, and refuse to eat or drink, till extreme hunger and thirst obliged him; and long would it be, ere he would be reconciled to confinement.

I knew a little Boy, who was otherwife good, but fo exceedingly fond of Birds, that he would try every means in his power to catch them. One day he had fixed fome traps made of fticks and brickbats, and being called away to go to School, forgot to mention his traps. He did not come home till a week afterwards, when the firft news he heard was, that a poor Robin had been caught in one, where he remained till he was ftarved to death; a Sparrow was crufhed to pieces, and another had his leg broke: Now, Now, would not any good little Boy have been very forry to have tormented the poor things in this manner? And fo was he, and I hope has never caught any fince. But I muft leave you now, for I have many things to do; and fo good bye to you.

The Weather continues fo remarkably fine, Charlotte, that I long to be abroad. Do you vote for a walk? Henry, I am fure, will attend us, fo let us equip ourfelves and be gone.

What is Henry running after ? Oh! it is a Butterfly, I fee; well, you have caught it, poor little tender creature ! take care how you handle it; would you believe it ? all that powder which comes off on your Fingers, is feathers. I have feen fome like it in a Microfcope, and will fhew fome to you by and by.

Try

Try if you can find a Caterpillar. Why, you have got feveral forts! well, I have a long hiftory to tell you about them when we go home. See what a neft of little ones are in that Web in the Hedge! As foon as they were big enough to go to work, they spun it to keep the wet off; the Dew, you fee, hangs without fide, and does not penetrate through. There are more ! blefs me, there are thoufands! We have had fuch dry weather lately, that I fear the Gardens and Fields will be overrun : they will deftroy all the Cabbages; the Birds may feaft away, for they eat Caterpillars as the larger Birds deftroy them.

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Behold what a fwarm of very minute Infects are there, like a cloud before us ! You would fcarcely fuppofe that thefe little creatures, when feen with a magnifying Glafs, are very beautiful, and adorned with magnificent fringes as fine as gold and filver, with with elegant tufts of feathers; and fome parts appear like velvet embroidered with pearls. Every one of them is furnished with weapons of defence, and all have enemies to defend themfelves against; each has some particular plant or herb to feed on, and knows where to seek it. There are some for exceedingly small, that they cannot be seen at all with the naked eye, but, when seen, are as wonderful as the rest.

Look how bufy that Spider is at her work. Your filly maid has taught you to be afraid of Spiders, but I hope you have both of you fenfe enough to get the better of fuch ridiculous fears. Pray confider how much ftronger you are than they, and how much larger. It is true they will fometimes drop down fuddenly, but that is from fear of your hurting them; how often are their Nefts and Webs cleared away? But I never heard heard that a Spider took a Broom and fwept a little Boy away, or trod one to Death. I defire you both to take notice, that when a Spider drops down it always runs away as fast as it possibly can, therefore certainly has no defign against you. I tell you what, as they dirty our Houfes, and cobwebs have a very untidy appearance, I must defire that the Housemaid will keep them away; but I am fure little Boys and Girls may take a good leffon from fpiders, and learn both industry and exactness; for their Webs are woven with the most perfect regularity. You will be exceedingly pleafed to read an account of their method of working, and I shall shew you parts of them in the Microfcope.

Take care, take care, Charlotte, mind where you tread! why you might have destroyed a City for aught I know. I know. Look at those little bufy Ants; they are at work as hard as posble. Do you know that they get all the Corn they can, and lay it up against the Winter comes? They bury their Dead, carry their young ones about, and do many laborious things. If all Men and Women were as provident as they are, there would not be fo many Beggars.

Let us go and fee the Bees at work in their glafs hives. See, they are in a great buftle; furely there is fome curious Work going on. Curious, indeed, my dear! all the Honey and Wax we have, is the Work of thefe little Creatures. They fly about, and with a kind of trunk they have, they fuck fomething fweet out of the Flowers : Others get materials for the Wax, and form the Honey-comb, in which the Honey is depofited. Are they not very furprifing? The cells join exactly together, there is no room loft. This whole

whole fwarm of Bees are fubject to one Bee, which we call the Queen ; they follow her wherever fhe goes, and will fuffer themfelves to be killed, fooner than forfake her. But I must not tell you every particular about them, because I want you to read the account yourfelves, in the Books I mentioned to you. Most People keep Bees in straw Hives, and burn them as foon as they have finished their Combs, in order to get their Honey; but I bought these glass ones, on purpose to have the pleafure of feeing them work, without being obliged to kill them. When the Honey is taken, you shall see how it is managed, and I will treat you with fome for your Supper. Should you at any time have a Cough, or Sore Throat, I will make a Medicine, with Honey in it, which will help to cure you: So pray remember how useful Bees are, and never hurt them. Keep F in

in mind alfo, that not even the leaft of these Creatures, which I have shewed to you, are idle; all are employed. They don't faunter away their time, but take care of their Families, and build Houfes. The young ones learn readily what the old ones shew them how to do; and little Boys and Girls should likewife be defrous of improving from the Inftructions that are given them. It is a great deal of trouble to teach Children all that is neceffary for them to learn, and very expensive. If they do not accept of Knowledge when it is offered, people will grow tired of instructing them; and they will be laughed at, and defpifed for their Ignorance. The Days pafs heavily along, when fpent in Idleness and Folly. You may now go and divert yourfelves as you pleafe, and in the Afternoon come to me again.

See,

See, I am prepared for you; here is the Microfcope; in it is a magnifying Glass, that is, a Glass which makes every thing appear larger than it does to the naked Eye; some magnify a great deal more; but this will answer our purpose. Now all the Wonders I told you of will be prefented to your fight. In this Box are a fet of Objects, ready prepared for us. Now the Glass is fixed. Pray Sir, let the Lady look first ; if you are a Philosopher, do not forget you are a Gentlemen. Can you guess what this is, Charlotte? Do you look, Henry. It is only part of a Feather of a Goole, but appears like an entire one. This is a bit of a Peacock's, examine it before I put it in; now view it, and you will perceive it to be perfectly beautiful. I am going to fhew you the Feet, Wings, and Head of a common Fly; this is its Leg, fee the Claws; the Head appears to have an hundred Eyes. E 2

## [ 84 ]

Eyes. I must shew you the parts of a Bee. See what a dreadful Weapon the Sting appears. Ah! Henry, I hope you will be cautious how you catch Bees again; and I am fure you will not take a pleafure in tormenting Flies, now you have feen what limbs they have. You may affure yourfelf, that they fuffer great agony when their Wings and Legs are torn off. I never could endure, without great uneafinefs, to fee a Cock-chaffer ipinning, as they call it, on a pin. The noise and humming it makes is its way of crying and groaning. Let me beg of you therefore, Henry, if you wish to be thought a Boy of a generous Spirit, never to take pleafure in hurting any thing that is lefs and weaker than yourfelf. Think how you should like to have a Man tie a ftring about you, and pull you along, whirl you about in the Air till you loft your Senfes, break your Limbs, bits and here fome of the bits of

and perhaps throw you down at last, and tread upon you.

I must shew you this Bean; you know I told you that all plants grew from Seeds; this is the feed of a Bean. I have fplit it open, and at the bottom you may fee the little Plant. It is at prefent too tender to bear the Earth next to it, fo you fee it is provided with a covering. The white part of the Bean will nourish the Plant till it is stronger, when it will fpring out, and the white will drop off, and leave it to the Earth, where it will encrease every day, till it grows up and comes to perfection. It is just the fame with all Vegetables, from the humble Grafs to the stately Oak, only, in very little Plants we cannot difcover them without exceeding good Glaffes.

I had like to have forgot this Butterfly's Wing; there you fee the holes where the Quills came out, and here fome of the bits of E 3 Duft, Duft, which you may convince yourfelf are actually Feathers. I muft shew you this little Infect which came off a Rose Leaf, and here is a drop of Vinegar full of little things like Eels.

You must not pore too long, for it will hurt your Eyes. I have only shewn you these, to convince you that a curions search may discover new wonders; and were you to keep on to the end of a long Life, you would not see them all.

What does your Brother fay, Charlotte? That he wifhes his Eyes were Microfcopes. Alas! my dear Boy, you know not what you wifh for. If that was the cafe, we fhould fee very furprizing things, to be fure, but then, what we now look at with pleafure, would become monftrous to us. Men and Women would appear fo large, that we could only fee a bit of them at once. We fhould not know a Houfe from a Wall, an Ox from a Mountain, and fhould be involved in a thoufand difficulties. If we came to a Kennel, we might miftake it for a River; take a Cat for a Tyger, a Moufe for a Bear: in fhort, abfurdities out of number would follow. So reft contented, that your Eyes can fee with eafe every thing that is ufeful or hurtful to you; and if you want to be curious, there are Glaffes, you know, to affift you.

I promifed you the Hiftory of Caterpillars, and make it a rule never to break my Word, fo pray attend to me.

re What, leave office and the

I believe I must fix upon Silk Worms, because they are the most useful to us. First of all they are in little greyish Eggs, which may be laid by in a drawer till warm weather comes the next year, when they must E 4

be put where the Sun fhines hot; in a little time they break, and out come small grey Maggots; those who keep them, pick them up, and lay them upon Mulberry Leaves; they grow apace, for they eat all day long; in a few days the Skins come off, and they look a little handfome when they have got new ones: Soon after they change them again, and then are pretty white Worms, larger than before, as big as one of your Fingers. They foon begin to look yellowish, leave off eating, and go to work: first they spin a fort of Wool, then they form a Ball, the fize and shape of a Pigeon's Egg, and are quite hidden from our fight; but their Business is not yet complete, they make a Lining withinfide, a great deal clofer woven than the Cloth of a Man's coat.

Their Silk is extremely valuable, and all the fine Clothes which Ladies wear wear are the works of these little crawling Insects. Who would be proud of being dressed in Silks and Sattins, when they know this to be the Case ?

A great many of the Balls are put into warm Water, and those who are used to the business readily find the ends. They are obliged to put feveral together to make the Silk of a proper fize, and they wind it off in Skeins upon a little Reel then they come to the linings I told you of, which they cut open with a pair of Sciffars, and use them for making artificial Flowers. But what do you think they find withinfide, Silk Worms? no, nothing the least like them, but Cryfalises, as they are called. A Cryfalis is a brown thing the fize of a fmall Bean, fomewhat of the shape of a Barrel, no Head, no Legs, no Body to be seen ; but if you touch it, one end will move a little, which shews that it is not quite E 5 · 755%

quite dead. In this ftate it lies fome days, and breaks forth a large white Moth, with two black Eyes, four Wings, long Legs, and a Body covered with Feathers : view it through a Microfcope, and you might take it for a Chicken. Is it not very aftonifhing? It truly is, but not more fo than many other things. Almost all things in Nature, whether they have life or not, undergo as furprizing changes.

You want to keep Silk Worms, Charlotte; I am always glad to indulge you when I can, and will let you have a few next Summer, becaufe, I could wifh you to fee thefe curiofities yourfelf; but you will never be a filk Merchant, nor will it anfwer to Ladies to keep a great quantity of the Balls. Befides, they are reckoned unwholefome when there are many of them together; and it is dirty, troublefome work to thange the Leaves they feed on twice a day.

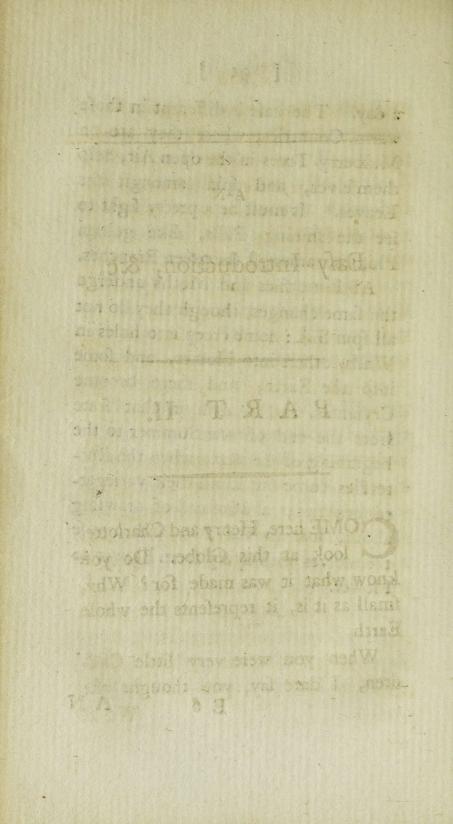
a day. The cafe is different in those warm Countries, where they are on Mulberry-Trees in the open Air, help themselves, and spin amongst the Leaves. It must be a pretty fight to fee the shining Balls, like golden Plumbs, amongst the green Branches.

All Butterflies and Moths undergo the fame changes, though they do not all fpin Silk : fome creep into holes in Walls, others into Houfes, and fome into the Earth, and there become Cryfalises, and remain in that state from the end of one Summer to the beginning of the next, when the Butterflies come out in all their variegated beauties; and instead of crawling about, foar in the Air, and amufe themfelves with flying from Flower to -Flower. and to ynthe op rearge a good

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# Eafy Introduction, &c.

## PART II.

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COME here, Henry and Charlotte, look at this Globe. Do you know what it was made for? Why, fmall as it is, it reprefents the whole Earth.

When you were very little Children, I dare fay, you thought the World World was no bigger than the Town you live in, and that you had feen all the Men and Women in it; but now you know better, for I think I have told you, that there are thoufands and ten thoufands of People: You have feen a great many at Church, but they are only a finall number of what the Earth contains. When you go to London, you will be quite aftonifhed at the Multitudes, for they croud along the Streets in the City, like Bees in a Hive, and are as bufy too.

The World is an exceeding large Globe, and this before us is a kind of Miniature Picture of it. You fee here vaft numbers of Lines drawn; one part is painted blue, another red, another yellow, another green; they ftand for different Kingdoms.

It is not possible to draw every part of the great World on a Globe, any more than than it was for the Painter to mark every hair of the Eyebrows on this Imall Picture in my Bracelet. Here is a Pea; now you fee this is of the fame form as the Globe, but we fhould not be able to deferibe fo much upon it; and yet we might reprefent the large green and yellow places, &c. by dots of different colours, and call them England, France, and fo on, just to fhew what fituations those Kingdoms have.

In the fame manner then, as the Pea refembles the Globe, the Globe refembles the World.

The Earth is not fmooth and even, as this globe is; because there are many Mountains and Hills on it; but though we call them large, and so they are to such little creatures as us, they are no bigger in proportion to the Earth, than grains of Sand would appear here; therefore we say it is round.

Neither

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Neither is the World all Land; for there are vast hollow places between the different Kingdoms, and they are filled up with Water. The largeft Waters, fuch as this on the Globe, are called Oceans, lefs ones Seas, and there are others yet fmaller, which run in among the land, that are called Rivers; there are, befides, fmaller pieces, called Ponds, Ditches, Brooks, and others, which are used for supplying us with what is neceffary to boil our Meat, brew Beer, clean our Houfes, water our Gardens when there is a want of Rain, and likewife for the Cattle, and other living creatures, to These generally spring out of drink. the Earth, and are at first only little Streams, but run along till they join with others, and are increased by the Rains that fall, and fo in time become great rivers like the Thames.

As the Land is full of living Creatures, so are the Waters, for they abound

va trist

bound with Fifh, many of which are caught for us to eat. Some People are very fond of Angling with a Line and a Hook, but I cannot help thinking it a very cruel fport, and always was of opinion that it is an idle one alfo, and never had patience to follow it. To fit hour after hour watching a floating quill; what an employment !

I was told of a Gentleman, who, after fitting a whole day in a mizzling rain, was afked by a Friend that faw him in the Evening what fuccefs he had had! Fine fport! fine fport! faid he, three bites and a nibble. I fhould have caught one Fifh, only my line broke, and it fwam away with the hook. This Perfon might truly fay, indeed, that he had done no harm, but in fo many hours, how many good Actions might he have performed? If none fhould reft contented without endeavouring to improve their time, what do they deferve who trifle it away?

Now,

Now, let us have another peep at the Globe. See what a great part of it is water. Now, fuppofe we were to take a number of those Mites which I shewed you to-day in the Cheefe, and fet them to crawl about the Globe, they might ferve to represent the Men and Women that inhabit the Earth. As there is no real water on the Globe, only a Picture of it, the Mites might go which way they pleafed; but fuppose the places which stand for Water were really dug hollow, and made into little Seas and Rivers, how would they contrive to get acrofs them to any other part which the Water came in betwixt? It is the fame with us, for we should never be able to reach parts. beyond Sea, unless there was a contrivance to crofs it.

This place is Great Britain, the Kingdom we live in; you fee it is quite furrounded with Water. Now, fuppofe we wanted to go to France, what could

NOW

could we do? Why, first we should travel either in a Coach, Chaife, on Horfeback, or fome other way, to Dover, for it is too far to walk thither. At Dover, we should meet with a Packet-boat, that is, a fmall veffel, which carries letters and paffengers to France; as foon as the Wind was fair for us, we should fail away for Calais, as you have feen the pleafure Boats do. Then we fhould go on by land from one place to another, till in time we might reach the City of Paris, where we fhould find as many People as in London, and fee a great number of fine things. In this route we should pafs through French Flanders, the country where Cambrick and Lace are made.

Were we to talk English in France, none would understand us, so we must learn to speak French before we go, or they will take us for vulgar, ill-bred persons, because it is known that all genteel

#### [ 100 ]

genteel people in England learn that language.

When we had feen one foreign Country, it is most likely we should wish to see others, therefore we might go into Italy: And, as we travelled through the South of France, we should fee a great many vineyards, which are fields planted with grapevines; you know that wine is made from the juice of grapes. We should alfo vifit places where Silk-worms are kept; and you would find that they produce fuch quantities of Silk as furnish a very confiderable trade. We might travel by land from France to Italy; but must pass over some high Mountains, which divide Italy from France, called the Alps, the tops of which are always covered with Snow, and there is a great deal of Ice on them all the year round.

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You

You have feen in the Winter both Ice and Snow, but did you know that they were only Water? The Snow would have been Rain, only the Air being exceffively cold, made it freeze in falling; but as foon as the Weather became warmer, it diffolved, and the Ice thawed, as we call it, and then both were Water again.

After this fatiguing and frightful paffage over the Alps, where you would be in danger every minute of falling down dreadful Precipices, and of being dashed to pieces, but that the men who carry you are used to the ground, and can run as fast on it as you have seen little boys do on a wall: After this, I fay, you would arrive in Italy, and there the beautiful appearance of the Country would quite tranfport you; for it is defervedly called the Garden of the World. There are Myrtles and Orange Trees growing wild in the Hedges, as our Hawapp) thorn

thorn does here. Don't you wifh we could make fuch Hedges in England? Should we attempt it, Charlotte, I fear the firft Winter would intirely deftroy them, because the air is fo much colder here than it is there. You know the Gardener always carries the Myrtles and Orange Trees into the Green-house in the Winter.

The Fruits in Italy ripen much better than ours do, and therefore have a richer flavour; and they have in great plenty feveral forts which do not grow here, particularly abundance of Olives, which, when pickled, many people are very fond of; befides, there is a great deal of Oil made from them; part of which they fell to us, and is what we drefs our fallads with. There are Silk-worms in Italy alfo, on the Mulberry - trees. The Sky in that Country is moftly of a fine blue colour, and the Sun fhines brighter than it does here.

The

The Houfes are very magnificent, and most of them large; fome are built of Marble, for they have a great many Quarries of it, and their Churches are most magnificently adorned with fine Pictures, large filver Croffes, Candlesticks, and a thousand other curiofities, which occasion many people to travel thither in order to fee them; and particularly the noble buildings which were erected a great many years ago, and are now falling to decay.

But amongst the Curiofities of Italy, I must not forget to mention Mount Vefuvius, a large Mountain, which fometimes bursts out with an astonishing noife, much louder than thunder, and casts forth flames, with hot assaud and cinders, many miles distant; numbers of houses are fometimes destroyed, and people are killed by these Eruptions.

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tions. A fiery matter, called Lava, iffues from the Mountain, and runs with a most rapid Stream for several miles together, carrying away every thing before it, till it reaches the Sea, which boils and hiss in an astonishing manner when the Lava reaches it.

Suppofe we were there, Henry, do you think you fhould like to go up the Mountain? What fay you, Charlotte? Had you not rather live in England, and be contented with what it produces, than go to live near a burning Mountain, to enjoy all the fine things I told you of?

There are numbers of these Volcacanos, (as they are called) in the World, the largest we know is Mount Etna, in Sicily.—When you are older you shall read a description of it in Brydone's Travels, which will astonish and delight you.

I am entirely of your mind, Charlotte; wereI to go into that Country, I should I fhould endeavour to get courage to view it near, but fhould approach it with trembling fteps. Do not think, though, that these Mountains were only made to frighten and deftroy people. Like all things elfe they have their ufe. There is a great deal of Fire withinfide the Earth, which if it had not places to vent itself at, might do a great deal of worfe mischief, nay, deftroy it entirely.

The perfons who live on these Mountains feem to enjoy Life as well as others; and as there are ufually fome Years between the Eruptions, they plant Vines and other things, which prove very fruitful; and the Mountain ufually fmokes, or they hear noifes from it, which shew that it is near burfting, fo they fometimes fave themselves from the danger, by removing for a time.

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When you are older, Charlotte, you shall read books of Travels, which describe what is worth observation in every Country. Perhaps Henry may be a Traveller himfelf, for you know. Gentlemen often make the Tour, as they call it, and it is very right they fhould fee the World, if they take care to get fufficient knowledge before they go, to enable them to make proper observations; but for an ignorant Person to visit foreign Countries, is only to publish his own shame whereever he goes; becaufe every one who fees a Gentleman that has left his own Country to vifit their's, naturally enquires what he is, and fhould they find him deficient in knowledge, he would deferve to be laughed at and ridiculed; but should he prove fensible and well informed, his company would be sought for, because he can give an account of places and things which they have

have never feen; and he is refpected and honoured.

The language which People in Italy fpeak, is Italian, and it is very fashionable to learn it; besides, if Travellers refide there long, they must be at a great lofs without it; though not fo much as they would be without French, because that is a Language which almost all Nations learn : therefore if a perfon knows it, he may find somebody or other in most places whom he can converse with; and if those understand Italian, (or the Language of the perfons in that Country where they are) they may explain to the Englishman what the Italian fays, and to the Italian what the Englishman fays; this is called Interpreting. But who would wish to be fo troublefome to others, when by a little pains and application he may learn all the Languages himfelf, and be an accomplifhed Gentleman?

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I think

I think we have flaid long enough in Italy, Henry, and am afraid you are tired; fo take leave of the World for to-night, eat your fupper, and go to bed; to-morrow I will tell you more. Good night, Charlotte.

Well, Henry, how did you fleep? Did you dream of the Myrtle hedges and burning Mountains? I fuppofe you would like to have a full defcription of every country in the World; but I hope you will one day be fond of reading, then I shall furnish you with books, which will make you acquainted with a vaft deal; from them you will learn, that fome People in the World are black, others have copper-coloured complexions: that every country produces fomething which does not grow any where elfe; that some parts of the World are hot, others exceffively cold; but every climate

mate agrees with the Natives, that is to fay, thofe who are born there, better than any other would do; and the People in one land make themfelves as happy as others who have greater advantages, ufually think their own country the beft in the World, and would not change it for any other.

You are an ENGLISHMAN, Henry, fo you must love England the best; and if you travel all the World over, you will never find a better country. Here we have neither fuch piercing cold, nor fuch fcorching heat, as fome countries are subject to; we have plenty of corn to make bread; barley to brew beer; wool to spin for clothing; flax for linen; the best roast beef in the World, and many other comforts. And we have Artifts and Manufacturers to make every thing we actually ftand in need of; in short, Old England is a very defirable place, and here your friends live, fo that I make

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no doubt, my dear boy, you will return from your travels with great pleafure; tell us, who ftay at home, what wonderful things you have feen, and love your native land better and better. But you muft not defpife the People of other countries becaufe they do not fpeak, act, and drefs, as we do, for to them we appear as ftrange as they do to us.

I muft now tell you a little about the Sea. You know I faid that between the different Kingdoms on the Earth, there are vaft hollow places. Pray obferve this large fpace on the Globe, it is called the great Southern Ocean. You have feen a Fifh-pond, which is fo deep, that if a man ftood at the bottom, the water would cover his head; but that is no more than a cup-full, in comparifon of this great Ocean. Only look what a fpace it covers on the Globe; then caft your eyes eyes to those parts of the land which ftand for the greatest Kingdoms. Obferve, the Sea is a great deal the broadest, it is so deep in many places, that they cannot get a Line long enough, with a piece of Lead tied to it, to reach the bottom. When the Wind blows very high, it drives the waves up like great mountains of water, which roar and make a frightful noife when they tumble down. Sometimes Ships are driven about fo by the wind and waves, that they are thrown upon Rocks, which are a fort of ragged Hills in the Sea, as hard as ftones, some of them of an enormous fize, even above the furface of the Water, others concealed under it. All Sea Water has Salt in it, which may be separated from it by boiling; Salt is fo ferviceable to us, that after having been accustomed to it, we should not know what to do without it, particularly for Meat, which, by being F4

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being well rubbed with it, may be kept many months.

The reafon that the fresh Water in Rivers does not spoil, and grow good for nothing, is, that it keeps running continually from the fountain-head, that is, the place in the Earth it first springs from, towards the Sea; and where there is a tide, as you know is the cafe in the Thames, it is owing to the ebbing and flowing of the Sea, which fends the Water of such large Rivers back again every day.

The Sea is in conftant motion, and you would think it very aftonifhing, to ftand on the fhore, and behold how majeftically its mighty Waves follow one another, rolling with a folemn and pleafing noife; gradually advancing till they gain confiderably on the Shore, and when they have reached the bounds allotted them, and it is high tide, they retreat in the fame manner to vifit the oppofite Shore. Philo-

Philosophers tell us that it is the Moon which influences the Water, and occafions the ebbing and flowing of the Sea; and I fancy you will be of their opinion, when you are old enough to understand Mr. Nicholfon's Introduction to Natural Philofophy.

Henry wifhes to know where all the Water that fills the Sea, comes from. Indeed I cannot tell, perhaps it may fpring out from the middle of the Earth : I rather think it does, and that there is a great collection of Water there; but it is of no confequence to us to know that, we are certain that it is of the greatest use to us, and can fee enough to admire. in it, without fearching for its fource.

If the hollow places had been left empty, instead of being filled up with Water, how frightful they would have appear'd ! It would have been impoffible to have got across to any part whatever.

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ever. You think we might have had Wings to fly over, Charlotte ? Why I must own, that when I have feen the little feathered race foaring over our heads, and fporting about in the air, I have been tempted to wish for a pair of Wings myfelf; but when I confidered how large they must have been to have carried fuch heavy bodies as ours, I am apt to think we fhould have found them very troublefome incumbrances, and am fure we are better without them. But had there been those immense Abysses I was talking of, and we could have contrived to make a clever pair of wings, we could not at any rate have flown far without refting, and therefore must have tumbled headlong, and been dashed in pieces.

Befides, had there been any Fifhes, they must all have died, because they can no more live out of the Water for any confiderable time than we can live live in it; and now there are various kinds, as many, perhaps, as equal the number of the different forts of living creatures on the Land. Some fo aftonifhingly large, that I know not what to compare them with; others as minutely fmall; many extremely beautiful, others frightful to behold; fome of them are most delicious food, and are caught in great quantities with nets. The Turbot we are to have for dinner to-day came out of the Sea, and fo do Soals, Whitings, Cod-fish, Salmon, Lobsters, and many others.

Should all Fifhes keep in the wide Ocean, there would be but few caught, and none but Sailors could eat them; but they come in fhoals to the narrow parts of the Sea near Land; and Fifhermen, whofe bufinefs it is, go out in boats, throw nets into the Sea, and catch them; then fome are fent to all great Towns, and from thence fold E 6 to to every place to which they can be carried before they are tainted or fpoiled: fome again, fuch as the Cod on the Banks of Newfoundland, are caught with a hook, and very long line; a bit of fifh, or red-rag, is faftened to the hook, and ferves as a bait to entice the fifh to it. They are then falted, and fent in fhips to different parts of Europe, which furnifhes employment for a great number of Sailors, and is an extensive and profitable branch of commerce.

If we did not eat Fifhes, the larger kinds would, for they prey on one another as Birds and other animals do. In Books of natural hiftory there are a great many entertaining things concerning Fifhes. Only think what a deal of pleafure you will have, Henry, when you can fit ftill long enough to read them, and are fufficiently improved to be able to underftand them ! In

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In many of those books there are pictures of what they describe.

I forgot to tell you, that Fifhes have no Legs. You know it. Oh! I beg your pardon, Sir, I did not recollect what a Man I was talking to; give me leave to inform you, however, why they have not; becaufe they have no ufe for them, and would find them very aukward things; their Fins anfwer the purpofe of Swimming much better.

Many Fifhes have very fharp Teeth, others Thorns at their fides, and various weapons of defence; and inftead of clothes, are covered with Scales, which the water cannot penetrate.

There are a great many things growing at the bottom of the Sea, called Sea-weeds. I have a Picture in my Dreffing-room, made of them; you have often admired them, Charlotte. Indeed,

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Indeed, they are extremely curious; the Fishes, I suppose eat them.

Befides those I have been speaking of, that fwim about, there are a vaft number of Shell-fifh. That Cabinet which stands there is filled with Shells : it contains great variety, but there are, for aught I know, hundreds more. Some are much larger than any here; others, you see, so small that you could not perceive them unlefs they were laid on white paper; and yet in the Microfcope they would appear to as much advantage as the Infects did. Observe what curious shapes and variety of colours! I know my dears, you admire this beautiful collection, and well you may ! every one of these Shells formerly had a Fish in it; it used to come part of the way out, as you have feen a fnail do, and draw back again at pleasure; they generally remain at the bottom of the Sea, but fometimes Storms throw them on

OR Shore, where they are picked up and kept by curious People.

There is likewife Coral, both white and red. Here is a bit of each; that beautiful yellow fubftance by it, is Amber; it makes elegant cabinets and other things; and the Ladies in former days were fond of wearing necklaces of it.

All Pearls come out of the Sea too; there are great quantities to be met with in a particular kind of Oyfters, and people called Divers, have the fkill to fink themfelves to the bottom of the Water, and by means of fome ingenious contrivances to fupply them with air, are able to ftay long enough to get a great many Pearls, which they fell for a deal of money; and thofe who can purchafe them, think themfelves very fine when they are adorned with them.

Peo-

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People of fortune should have handfome Clothes, Jewels, and other ornaments, becaufe it is very right for them to drefs better than their Inferiors, who could not afford fuch things, as they find it hard to get money enough for the bare necessaries of life; therefore Perfons who have plentiful Fortunes ought to encourage Labour and Ingenuity, by laying out fome part in buying what others fell and make to procure themfelves and families a livelihood : but it is very wrong to value themfelves on Riches and fine Clothes, for they fhould confider, that Gold, Silver, and Jewels came out of the Bowels of the Earth, therefore they could not make nor probably find one of them : that their finest Silks are spun from the entrails of a little crawling Worm, and that after it is fpun they could not use it, till it had gone through the hands of many poor Workmen: What

What would the Rich do without the Poor? Could they make their own Shoes, build their Houfes, plough their Fields, fell their timber Trees, fhear their Sheep, and a hundred other things abfolutely neceffary to be done by fomebody? They fhould therefore learn to behave with kindnefs and condefcenfion to the induftrious, and remember, that the meaneft Artificer, if he difcharges the Duties of his ftation, is preferable to themfelves, unlefs they are diftinguifhed as much by their Benevolence and Greatnefs of Mind, as by their Rank and Riches.

The Poor fhould never forget how much they are obliged to, and how greatly they depend on their Superiors; but treat them with all poffible refpect, and never envy them; for, as they have no Money nor Land of their own, they must perish for want of neceffaries, unless they could obtain fome by their labour. If they are fo fortufortunate to be paid for what they do, they can purchafe what they want with the money, you know, and may in their humble condition, enjoy an equal fhare of Happinefs with the rich, and avoid many anxious cares and dangers, to which an elevated flation is frequently exposed.

I dare fay you did not think there were fo many curiofities at the Bottom of the Sea, nor fhould we ever have known it, but by the Invention of Ships, which was a very curious and ufeful contrivance. Fine China, Muflins, Calicoes, Spices, and other Articles, are brought from the Eaft Indies in Ships, which carry back in exchange what our own Country produces; they alfo convey to England vaft quantities of Tea, which is a plant that grows in the Eaft Indies in great abundance; the leaves of it are dried, dried, which make them curl up, and then they are packed in boxes and canifters, and fent to different parts of the World: But a good bafin of Milk, or Tea made from herbs, which our own Gardens fupply, are in my opinion greatly preferable, and much wholefomer for us.

From the West-Indies we get Sugar, which is produced by boiling the juice of a particular fort of Plant called a Sugar-Cane; the Inhabitants have large Plantations of it, which bring them in a great deal of money; but the poor Negroes undergo fevere hardships, who are employed to work in the Plantations.

Negroes are black people; many perfons in England, you know have them for Servants. Abroad they toil like Horfes, and are frequently much worfe used, which is an exceeding barbarous thing, for they are *Men* as well as their Masters, though they are of of that black colour; but how much does it pain me to tell you, that this inhuman commerce which puts thefe poor creatures into fuch a dreadful fituation, is carried on by Englishmen, and even authorized by our own laws.

From Spain we get Oranges, Lemons, Nuts, Almonds, Figs, and Raifins, (which laft are dried Grapes); from Lifbon the fame, befides thofe Articles a great deal of Wine. If there were lefs of that it would be better; for many people drink fo much of it as to hurt their conftitutions. Would they make it a rule, to drink only when they were thirfty or weary, and leave off drinking as foon as they were refreshed, they would preferve their healths, and might perhaps live many years longer.

I could mention the productions of other countries, but do not intend to travel round the Globe with you. I shall only tell you that there are many things things valuable and worth observation in every part of the World; and those which you have no opportunity of seeing, you may read of in Books, which will give you much better accounts of things than I am able to do.

You find, my dears, what great ufe Ships are of, but how fhall I make you underftand the nature of a voyage? I will take you both to Mr. Wilfon's, where you will fee a Model of a Ship; that is, a little thing made exactly like one, only a great deal lefs, as you will judge by the figures which reprefent the Sailors. Mr. Wilfon will explain the Mafts, Sails, Ropes, and other parts, which I am totally unacquainted with.

When a Voyage is to be taken, the Ship is first perfectly repaired, if it is not a new one, fo that it may effectually keep out the Water and not fink.

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fink. The Sails and Mafts muft be in exact order, ftrong, tight, and whole, that they may be able to ftand the force of the Winds; then they lay in a great quantity of Biscuits, as bread would foon get mouldy, feveral Cafks of fresh Water, for that in the Sea is very naufeous, fome Barrels of Salt Beef and Pork, because they cannot get fresh Meat when they launch out into the wide Ocean, and leave the Fields and Meadows behind them. They carry as much Garden stuff too as they conveniently can; when it is gone, they are obliged to make shift without, till they land somewhere to get a fresh supply.

A Ship which goes on a Trading Voyage, befides a ftock of provisions, takes in her Cargo, that is, the Goods which the owner proposes to fell in foreign countries; fuch as Wool, Watches, Hardware, 1 mean Knives, Sciffors, various kinds of Tools, and numerous

rous Articles which other Nations are glad to purchase from England, because they are made best here. Every Ship requires a certain number of Men, fome more, fome lefs, according to the fize of the Veffel; for there is always a great deal of work for them to do, especially in stormy weather. One time all the Sails must be fpread in order to receive the Wind, at other times all must be furled, or taken in, to prevent the Veffel's being overset by violent gufts of Wind. They have large iron things on board called Anchors, with very great Ropes, or Cables, which are tied to them, and fastened to the Vessel, and when they want to keep the Ship in a particular place, they cast them into the Sea, where they can reach the Bottom, and they flick into the Ground and fasten, fo as often to preferve the Ship from being loft. Somebody on board is obliged frequently to

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to keep letting down a line with a large leaden Plummet, that they may know the depth of the Water. A man called the Pilot, ftands at the Helm, and directs thofe who hold it: The Helm turns the Rudder, by which means they can fteer the Ship any way they pleafe; the Pilot must be a perfon who knows that part of the Sea very well.

When the Veffel is perfectly fitted and ready for her Voyage, the Captain is impatient to be gone, and keeps himfelf and all his jolly Tars in readinefs to fail with the firft fair Wind; but I believe I muft inform you what I mean by a fair Wind. Let us juft ftep out of Doors. Now look forward; that is Eaft, behind you the Weft, on the right hand the South, on the left the North. Now you know, that when the Wind blows behind

hind you, it forces you along; when you face it, if very high, you can scarcely stand against it; but it does not always blow the fame way; let us go in and look at the Globe. Here is the Eaft, Weft, North, and South; now if they want to fail to a Country which is North, they must have a South Wind to blow them along, for if the Wind were in the North it would be impossible for them to get forward; fo that fometimes a Voyage is made much longer than it would have been, from the Winds changing about from one corner to another, which often obliges them to go to other places, if it blows very high; but they are not obliged to return for every change of Wind, because the art of Navigation teaches the Sailors a method of managing the Ship, fo that they can get on by crofsing backwards and forwards, though G if

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if it blows right it faves them a deal of trouble.

It is a very furprizing thing to think of, but it is really true, that in fome parts of the Sea the Wind will blow conftantly for Months together every Year, the fame way, which enables Ships to reach the Places they are wanted to go to; and then the Wind turns and blows the direct contrary way, which brings them back again : Therefore people contrive thefe Voyages fo as to endeavour to get to those parts time enough to have the benefit of them: They are called Trade Winds, or Monfoons, and thefe Arrows on the Globe, shew the particular parts of the Ocean they blow in.

When people are out in the wide Ocean, they are frequently whole Months

Months together without feeing any thing befides Sky and Water, excepting what their own Ship contains. Look here, for inftance, in the middle of the great Southern Ocean: It is very diftant from the Land, and there are no Paths marked out on the furface of the Water, to shew the nearest way to any place; but those who have been there formerly, have kept the exacteft account they could, of the Rocks they escaped, the little Islands they met with, and other particulars, which ferve those who come after them, as fome rule to go by; for there are Maps, or Pictures made of those Parts of the Sea, called Charts, which people who fail that way carry with them; by which means they know how to efcape Rocks, Quickfands, Whirlpools, and other dangerous things, which are defcribed to be in particular Latitudes. You must at prefent be contented G 2 withwithout an explanation of the word Latitude; you will know all about it when you learn Geography.

But after all their clever contrivances, they would be utterly at a lofs without a Compass on board, which is an Inftrument that looks like the Dial of a Clock, only, instead of the Hours, they put Eaft, Weft, North, South; in the middle comes up a little Spike, upon which is a Needle that has a fmall hole in the middle of it, to receive the little Spike, upon which it hangs very lightly. This Needle must be rubbed on the Loadftone, which gives it the remarkable property of pointing always to the North. One of these Compasses is fixed on board every Ship, and when they look at it, they can tell where the North is, and order the Ship accordingly; becaufe they can either fail towards the North, or from it, as fuits their purpose, you know. But I shall foon foon get beyond my knowledge here, Henry, and must own myfelf a very indifferent failor; fo I have done with Navigation; but must fay a little more about the Loadstone or Magnet, as it is certainly a most wonderful as well as useful thing.

The Loadstone is hard, very much refembling Iron, and ufually found in the mines with that metal. It attracts or draws Iron and Steel, fo as to make them stick to it. If you rub those metals upon it they will attract alfo, though in a less degree. Here is a Magnet with two pieces of Steel fixed in it; they are called its Poles, one the North, the other the South. Now let us fee what effect they will have on these Needles which we work with: I will lay them on the Table. Hold the Magnet over them; fee how they jump up; you would think they were alive; but it is only that the the Loadstone draws them; they would lie still enough if there were no Loadstone near them. Now take notice, I will touch two others, one at each Pole. If I attempt to bring that which has been touched by the North, to the South Pole, it will drive it away, and fo of the other, which is called repelling it.

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I will give you this pretty little Magnet, Henry, which I have got in a cafe. It is only a piece of Steel that has been rubbed in the manner I faid, but will divert you very much. How the Loadstone performs all this, I cannot tell, any more than I could inform you where all the Water in the World comes from; but there are many things we fee that we have not wisdom to understand perfectly; happy it is that we can learn fo much as we do.

Don't you think, Henry, that it is very entertaining to hear of all these wonderful things, which I have been telling telling you of ? and will you promife me to endeavour to remember them? Why, you will be able to inftruct William by the time he is as big as you are now; and will not that give you Pleafure? Now you may go and amuse yourselves; I have a hundred things more to tell you, but would not tire you with too many at once; fo adieu for the present.

Well, Charlotte, I fee by the preparations you have made, that you intend to folicit me for a Walk. It will be equally agreeable to me after the heat of the Day, and our little Beau will, I make no doubt, attend us. Come hither, my charming little fellow ! you are fo good-natured, Henry, and fo attentive to my Inftructions, that I am happy to have you by my fide. Charlotte and I are going to walk in the Fields, and could not bear to

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to go without you, though I fear we fhall be obliged to make you fit up beyond your ufual hour.

We will first walk up this shady Lane, where we may gather Bachelor's Buttons, and numbers of other Flowers, which were not blown the other Day; there will be fresh ones continually till the Summer is over.

Who will get over the Stile firft? The Gentleman, to be fure, and then he can hand the Ladies, you know. Take care! take care! Henry, do not be in too great a hurry, left you tumble, and that would be a fad difafter, to fee our Beau rolling in the Duft. Now we are all fafe.

What a delightful profpect is here ! How rich the Earth looks, with the beautiful mixture of Paftures, where the Flocks and Herds are feeding, and Corn Fields almost ripe for Harvest, which promise Bread for thoufands ! fands! How cool and refreshing does that River look, winding along amongst them. Then that majestic Wood ! where grow Oaks, which perhaps will one Day be made into Ships, and plough the Ocean to bring us treasures from distant Lands. But above all observe the glorious Sun! he appears to be now finking in the Weft, but To-morrow will fhew himfelf in the Eaft. I think I have never told you any thing about him, and indeed I fcarcely know what to fay, becaufe many particulars which are known concerning him, you could not at present be able to understand. However, you may depend on it, that I will never tell you any thing but truth; and if you do not comprehend me now, you undoubtedly will, when it shall be repeated to you fome time hence, when your understanding will be improved. You must endeavour to gain a little knowledge every day, and ada

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and in time you will have a confiderable fhare.

Well, the Sun then, is fuppofed to be a very large Globe of Fire, but different from any that we know. It is thousands and thousands of times larger than the World we live in. It keeps every thing that grows, alive, by its heat; for in all Plants and Trees there is a juice called Sap, which if the Sun did not melt, would be fo thick that they would not fhoot out. You know, that in the Winter all the Leaves drop off the Trees, and there are no Plants or Corn growing; that is because the Sun shines but little at that time of the Year, rifes late and fets early, fo that the Earth has but little of its heat, to what it has in the Summer, when it appears by four o'clock in the morning, and we do not lose fight of it till eight at night. The

The Sap has not time to get thick in those short nights; besides, the Air though cooler in the Night than in the Day, retains a great degree of heat, and is not like the chilling cold of Winter, even at Noonday. I faw you very curious the other Day, Henry, examining the Carpenter's Glue-pot, when he was at work in the Houfe. Did you not observe that the Glue was very thick before it was put on the Fire, but when it had been on fome time, it melted and became quite thin? Now we may compare the Sap in the Trees to Glue, because like that, it requires heat to melt it. If the Glue-pot should be put on a Fire and taken off foon, it would not be much melted, and if it flood off a long while would be quite hard ; but if you fet it on long enough to diffolve it entirely, and keep it from the Fire but a little while at a time, it would never get cold and thick. In the fame G 6

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fame manner the Sap is affected by the Summer and Winter. The continued heat of the Sun in the long warm Days, diffolves it fo entirely, that it cannot get thick in the fhort Nights, and on the contrary, in the fhort cold Days, it does not receive warmth enough to melt it.

Winter is a dreary, unpleafant feafon, though of very great ufe, as it prepares the Earth for the growth of the various Fruits which the other Seafons produce, and in its turn is exceedingly beneficial to our Healths, though were it to continue always, we fhould be in a terrible fituation; but as it is only for a little while, we do very well, becaufe there is plenty of Provifion both for Man and Beafts, laid up in Barns and Ricks. There are Coals and Wood, to make us cheerful Fires, and there has been Wool

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Wool enough taken from the Sheep's backs, to furnish us with Flannels and other warm Clothing. When we have felt the pinching cold of this uncomfortable Seafon, we are the better prepared to enjoy the lively one that follows. How agreeable it is to fee the Trees which have been stripped of their Leaves, renewing their Verdure; to behold the little Crocuffes and Snow-drops peeping out of the Ground; to hear the little Warblers chanting forth their Notes, as if they were finging Songs of joy; and to obferve the poor People come out of their Cottages with cheerful looks to pursue their daily Labours, now no longer hindered by Winter's Froft and Snow, which must have been dreadful to those who could not afford themfelves good Fires and warm Clothing.

I am going to tell you a very furprizing thing, Charlotte. I dare fay you

I

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you think the Sun goes round the Earth. It does not, I affure you; it is fixed, and the World goes round it once in a Year. Before they difcovered how large the Sun is, People thought as you do; but now we might as well fuppofe, (as Mr. Fergufon faid) that if you had a fowl to roaft, it would be neceffary to keep a great Fire going round it, while the fpit remained immoveable. No, I think indeed if the Earth wants fo much affiftance from the Sun, it is very well worth while to travel for it; and thus the matter really is ordered.

But we must begin to think of returning, for there is a deal of Dew on the Grass, and I fear we shall wet our feet, and catch cold. This Dew is very refreshing to the Earth, and as acceptable as a Glass of Water to you when you are thirsty.

There

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There is, as I told you, a great deal of Water in the Earth, but in Summer it lies very deep, and could not get up of itself to moisten the Plants; however, the heat of the Sun draws it, and when he fets, it falls and fupplies the want of Rain, of which you know there is but little in the fultry Weather. Much of it would do a great deal of harm; fpoil the Hay, beat down the Corn, and a hundred bad things. After all the Crops are got in, it is very neceffary to make the Earth fit to receive the Seed, and to help it to grow afterwards; for were the Ground to continue always as dry as it is now, there would be great difficulty in breaking, and turning it up with a Plough, and the Seed when fown, would not fwell at all; however, the Sun not only draws moifture out of the Earth, but much more out of the Sea, which goes up high in the Air, and gathers into Clouds, that are

are driven about by the Winds, till they come over different parts of the Land; and when they are too heavy, they break and fall down in showers. You may have fome notion of this, if you put some boiling Water in a Teapot, and cover it with the lid. When it has flood a little while, if you take the lid off, you will find drops of Water withinfide. The heat which the Fire left in the Water caufed them to rife up. In the fame Manner the Sun acts in respect to the Sea, and perhaps the Fire that is withinfide the Earth may heat the Water at the bottom, and help to make the Vapours rife.

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Why, I shall make a little Philosopher of you, Charlotte ! I do not mean, my Dear, to excite a defire in your Mind of entering too deeply into the study of these things. I would only have you read some easy Books on the Subject, that you may not, like like the ignorant common People, think the Sun a little thing, the fize of a Plate, and placed in the Heavens only to be gazed at. I am glad we are almost at home, for it begins to be very cool, and I imagine you wish to go to rest. To-morrow evening we will once more look at our Globe.

Oh! you are come to claim my promife, which I shall gladly fulfil. Now for the Globe. I told you that the Sun remains always in the fame place, and that the Earth goes round it once in every year; befides that, she turns round every Day. You think it strange to move two ways at once. Not at all. Why, you can do the fame, I am fure; you may keep turning about, and contrive fo to change your place every turn, that you can get from one end of the Room [ 146 ]

Room to the other by degrees. What I want to convince you of at present is, that the Earth's turning round is the cause of Day and Night; you must therefore suppose this Candle to be the Sun flanding ftill. Now, I will put a little Pin in the middle of this fide of the Globe next the Candle, another in the fide which is turned from it. When I turn the Globe about, the fide which is now dark will be enlightened, and the light fide will be in darknefs. This is a reprefentation of what happens to the Earth every Day and Night. Thefe places on which the Sun fhines have daylight; those on which he does not fhine are in darknefs: By this means all parts of the World have the benefit of the Sun's heat to warm and ripen their several productions; and likewife to refresh the Earth, Plants, and Animals; for you know it is after the Sun disappears in the Evening that

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that Dews fall. The parts of the Earth which are reprefented here where the Wire comes out, are called the Northern and Southern Poles. They are very cold places; for fometimes the Sun is not feen there for feveral Months, and then they never lose fight of him for several more. The reason of this you will be told, when you are taught the use of the Globes, for which I will procure you a more able Instructor than myfelf. I shall only tell you, that the absence of the Sun is not fo great a misfortune to those people who are subject to it as it would be to us; because those Countries where it happens do not produce the fame things which England does; and all that grow there naturally are fo formed, as to be able live in that climate. The Inhabitants are as happy as we; they work hard in these months while they have Daylight, and lay up stores for their long long Winter, when they dance and fing, and are as happy by Torch and Lamp-light as our Country Lads and Laffes when they celebrate Harvefthome, enlightened by the mild beams of the fetting Sun.

In the last mentioned Countries they catch Whales also, which I must give you fome little Account of.

They are Fifhes of an enormous fize. I have read of fome two hundred Feet long. You, Charlotte, know how much a Foot is, but Henry does not. This piece of ftring is a foot long. You can count a hundred; one, two, three, four, five, &c. very well; only think then of a living Creature two hundred times as long as this piece of ftring! What large Eyes he muft have! And fuch a Throat, that he can fwallow a Man up at a mouthful; and yet this Creature

ture may be overcome, and vaft numbers of them are killed in Greenland, particularly by people who go from Holland. Find Holland on the Globe. This is the Frozen Sea; fo called, becaufe there is generally a great deal of Ice in it. The air of this place is fo cold, that one would think nothing could induce People to venture thither; but many do, for their Voyages are very profitable. They have a particular kind of Veffels on purpose for Whale Fisheries; and when they fee one they immediately throw a fort of Dart at him, called a Harpoon, which flicks in, and wounds him, and then he finks under the water, with the Harpoon flicking in him; but there is always a ftring tied to it, with a large Gourd fastened to the other end; this floats on the Water, by which they know whereabouts the Whale is, and wait for his rifing up again, when they are ready

ready to strike at him with their Harpoons, till with repeated Wounds he dies. When they have killed him, they lash him to the fide of the vessel, or find means to drag him up on the Ice or Shore, and cut him in pieces, and put his Fat into Cass, which they boil and make Oil of, and sell it for a great deal of Money when they return home, for it is useful in dressing feveral forts of Skins, likewise Wool, and in a hundred other things.

The People who live in that cold Country, where I told you they continued for feveral Months without the light of the Sun, burn this Oil in Lamps; and it is quite a treafure to them.

The large Whales have two monftrous Tufks, fometimes fifteen feet long, which rife out of their jaws, and ferve them to gather the Weeds together, upon which they are fupposed to feed: These tufks are fplit, and and made into what we call Whalebone; which is likewife fold to great advantage; for it is ufed in Stays, Whips, and many other things. The Inhabitants of thefe Countries catch a number of wild Beafts, and make very comfortable Clothes for themfelves of the fkins.

I hope you perfectly underftand me, my Dears, in refpect to the Earth's turning round. You do, you fay, Charlotte; but Henry looks a little doubtful. You think if it were fo you fhould tumble off. No, you would not; for there is fomething in the Earth which draws you towards the Ground, in the fame manner as a Loadftone draws Iron and Steel. Pull your Magnet out; take up this Needle: there, fee, if you turn them round an hundred times, it will not drop off; and if you pull it away, it will

will fall towards the Magnet again. So if I was to hold you up high, and let you go, you would tumble to the Earth, because it draws you. The Steel of which the Magnet is made is hard, and therefore the Needle cannot enter it, but flicks to the outfide; the furface of the Earth is likewife hard, or we should be all drawn into it. The Needle has no life in it, therefore cannot move about on the Magnet, or it might go all over it, becaufe one part does not draw any ftronger than another. We, you know, are alive, and therefore can change our place upon the Earth; but were we to attempt to fly into the Air, we should infallibly tumble down; and not only People, but every thing on the Earth is affected in the fame manner. If we ride upon a Horfe, we are still attracted, but his Body fupports us from falling to the Earth, because it is impoffible for us to tumble through a Horfe:

Horfe; but if by any accident he shakes us off, down we come to the Ground immediately.

You wonder we do not feel the Earth move. Why, do you think this little Mite which stands here on the Globe can feel that move? I dare fay he cannot, but feems to himfelf to ftand quite still while it is turned round; for all that he fees about him are moved as well as himfelf, and therefore he remains in the fame place on the Globe. Could he be taken in a moment from this part of the Globe to that, and had the understanding of a Man, he would be convinced that it really does turn round, becaufe he would find the face of the Sky perfectly changed : for suppose he was removed at Midnight, when the Moon was shining, and the Stars glittering in the Heavens, he would, to his aftonishment, find himself in broad Day, enlightened by the Meridian Sun.

But

But till you are older you cannot understand much about the Stars, and, indeed, I know but very little of them myfelf; fufficient, however, to fill me with wonder and admiration. I am convinced in my own mind, that it is poffible there may be thoufands and ten thoufands of Suns and Worlds, many of them much larger than this which we inhabit; it is as probable to me, as that we might roll thousands and thousands of Marbles about different parts of this Earth, without their touching or coming in one anothers way; becaufe I am fure there is room enough for them in the Heavens; and, I think if you turn your thoughts that way, and read what has been written on the fubject, when you are old enough, you will be of the fame opinion.

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-Cita cit. of Lines.

What which we have been What

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What do you fay, Henry? Do you think that the People on that part of the Earth, which is oppofite to us, ftand at this time on their Heads? Indeed, my Dear, they do not; they have their Feet upon the Ground, and their Heads towards the Sky. The Trees, Plants, Houfes, and all, are the right end upwards. They cannot poffibly fall into the fky; it would be nonfenfe to fay fuch a thing.

The Air we breathe in entirely furrounds the Earth in the fame manner as the peel furrounds an Orange, or the fhell a Nut; but is fo thin that you cannot fee it. You know that Chocolate is not fo thin by a vaft deal as Water, and Water is a great deal thicker than Air; for we can fee that, but cannot fee Air. If it was not fo very thin we could not breathe in it. Every time we fetch our breath we draw in frefh Air; if we drew in Wa-H 2 ter

ter in that manner it would drown us. When we draw in fresh Air we throw out that which is become hot, by having been in our body. Convince yourfelf of what I fay; put your hand to your mouth, and draw your breath: does it not come out warm? but the open Air feels cool to your face. If there was no Air we could not live; and if we could live we should not be able to breathe; it is of use to us in a hundred respects, being neceffary for the prefervation of all living creatures in the World. Even the Fishes have Air Bladders, which are of infinite use to them. The Trees and Plants in general would die without Air, and we should have no -Winds, which you know are very ufeful, as I told you before, in respect to blowing the Ships along, and driving the Clouds about, fo that they may break and tall in different places on the

the dry Land, inftead of returning back to the Sea, from whence the Sun draws the Vapours that form them.

The Wind is a great ftream of Air; and though it fometimes does mifchief, yet it is of infinite ufe, as the Air would become extremely unwholefome if it was to remain ftill and motionlefs.

Now, I have made you turn your thoughts to the Sky, I must not forget the Moon, for that is a very beneficial thing to us. She is not a Globe of Fire, like the Sun, but supposed to be like the Earth we live in. All the light she has is borrowed from the Sun, for the light goes from him to the Moon as it comes down to us; and the Inhabitants, if there be any, living on the outfide as we do, fee the light in the fame manner, and in all probability enjoy equal advantages  $H_3$  with

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with us, from his warm, refreshing beams. Could we be removed thither, our Earth would appear to us like the Moon, only larger. The Moon and Earth are both fo large and thick, that the Sun cannot shine through them, but only make them look bright, as even the Candle will do any thing that it shines upon, which could not be seen in the darkness.

Take this gold Watch, put it in a dark place, and it will not be feen; let the Candle fhine upon it, and it will appear very bright, becaufe it receives the light; fo it is with the Moon; we fee that part light which the Sun fhines on. Sometimes it is but a very little Crefcent, at other times a full round Moon. The Sun always fhines upon half of it at once; but it happens that part of that half may be turned from us. I can make you underftand this better by the

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the Globe than from any Defcription.

We will fuppofe it to be the Moon, the Candle the Sun, and your little round head, Henry, to be the World. Now, you fee the whole of the light fide fronts you, but move the Globe a little from the place it now stands in, or move yourfelf, and part of the dark side will be towards you. We can see no more of the Moon than that piece of the enlightened part which fronts us, that is like a half Moon. Go round to the other fide, and you will fee there is no light fhining on it; it appears very different from the other: and you would not fee it at all, only that the whole room is enlightened by the Candle; but in respect to the Moon itself, you can see no part of that which the Sun does not shine upon, any more than you would fee this Globe if the Candle was taken away.

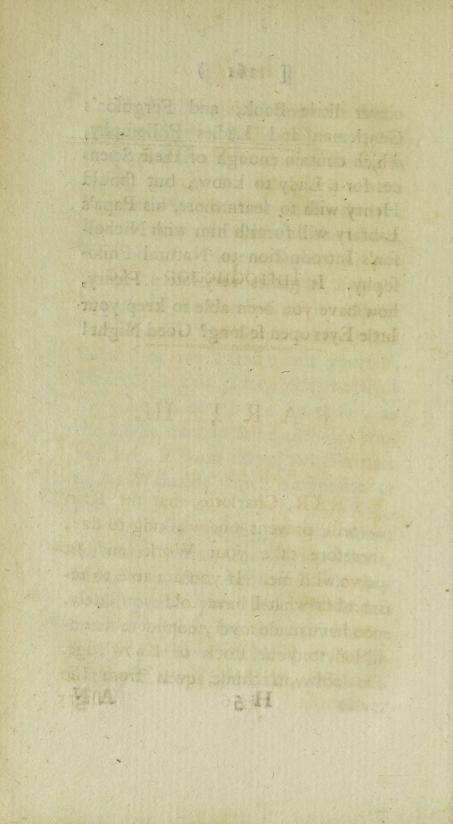
 $H_4$ 

The

The Eclipfe, which you were fo entertained with a little while ago, was occafioned by the Shadow of the Earth falling on the Moon, which always happens when the Earth is in a straight Line between the Sun and the Moon. You fee if I place a Screen, or any thing between the Candle and the Wainscot, the Shadow of it will be feen on the Wainfcot; there is the shadow of my Hand; put yourself, Henry, in this place, and we shall fee your Shadow; that is to fay, as the Light cannot shine through you, you keep it from falling on that part of the Wainfcot which is opposite to you.

I fhall fay nothing to you about the other Planets, Comets, fixed Stars, Milky-way, &c. becaufe I fear they would puzzle your little Heads too much at prefent, but fome time hence fhall let you have Mr. Newberry's Philofophy of Tops and Balls, which is a clever clever little Book, and Fergufon's Gentleman and Ladies Philofophy, which contain enough of these Sciences for a Lady to know; but should Henry wish to learn more, his Papa's Library will furnish him with Nicholfon's Introduction to Natural Philofophy. It grows very late. Henry, how have you been able to keep your little Eyes open so long? Good Night 1

AN



#### AN

# Easy Introduction, &c.

## PART III.

I FEAR, Charlotte, that the Rain will prevent our walking to-day, therefore take your Work and fit down with me. If you are able to remember what I have told you lately, you have made a very confiderable addition to your flock of Knowledge. Do not you think, even from the H 6 flight flight view we have taken of the works of Nature, that there muft be fomething delightful in the purfuit of these Studies? I hope you will always have a taste for fo profitable an amusement. I have as yet only fown the feeds of Knowledge in your mind, but shall be happy to affift your own industry in the cultivation of them, and hope you will find the felicity of your life increased, by purfuits so properly adapted to your nature.

We have examined a variety of Flowers, Plants, Trees, &c. and find them all moft wonderfully formed to anfwer the purpofes they feem to have been defigned for; likewife the Elements, Fire, Air, Earth, and Water, and every thing that the Earth and Sea contain. Animals are ftill more curious, and we have difcovered that they are of a Nature fuperior to Vegetables, or any inanimate animate production of the Earth; that every one is furnished with what is neceffary for its subfistence, and has as much knowledge as it has occasion for, in order to preferve itself from harm, and to take care of its young, as long as they stand in need of affistance.

But you fee, my Dear, that there is no living Creature which refembles-us. Every thing appears to have been made in fome meafure for our ufe, and we are able to apply them to our purpofes; therefore Man is properly called, the Lord of the Creation.

In many refpects indeed we feem to be inferior to Animals, for numbers of them exceed us in ftrength, fwiftnefs, fight, hearing, fmelling, and other particulars; let us therefore endeavour to find what it is that raifes us above them. The fubject is very important, therefore pray give me your your attention, and I doubt not, but you will understand me.

Man at first is a little helplefs Infant, unable to affist himfelf in the least; and were he not attended with the most tender and affiduous care, would perish miserably with cold, hunger, and nakedness: what would become of little William, think you, if there was no person to clothe, feed, or take care of him ?

The young of other Animals have in general warm Furs or Feathers, are able foon to provide for themfelves, and to do all that their nature requires; but it is a long while before a Child can take care of himfelf, for he does not even know, till experience teaches him, that Fire will burn, Water drown him, and a thoufand other things neceffary for his prefervation.

How-

However, he keeps gaining ftrength and knowledge every day; in a fhort time has the ufe of Speech, is able to diftinguifh one perfon from another, takes notice of every thing he hears, fees or touches, and is foon fuperior in underftanding, to the most fagacious animal in the World; though ftill very far from poffeffing either the Strength or Knowledge of a Man.

You cannot remember, Charlotte, the time when you were fuch a little Child as William, but can recollect that you were not always fo big as you are now; you, I hope will continue to grow and learn; but do you think that Tray has grown at all, or learned any thing lately? And as for your Canary-Bird, does not he fing the fame notes, over and over again? You may obferve that there are Children of various fizes, and have, even in your fhort Life, feen thofe who were great Boys and Girls, attain the height of Men Men and Women: You have feen Kittens grow to Cats; Puppies to Dogs; Chickens to Fowls: in our growth then we refemble the Animals, only we are a much longer time before we attain our full fize.

We are like them too, with refpect to Flesh, Bones, Skin, Blood, Eyes, Ears, Teeth, Legs, Feet, and many other particulars.

We as well as the Brutes, Birds, Fifhes, and Infects, are kept alive by eating and drinking. Our Body, as well as their's, when it has attained its full proportion, improves no more, and in the courfe of a few Years, when Old Age comes on, grows feeble, the fkin fhrivels, the Teeth drop out, there is a vifible decay of Nature, which at laft finks under infirmity and dies; the Body is then buried, and turns to duft and afhes; and were it to be mingled with that of Dogs and Cats, Cats, or the meaneft of Animals, could not be diftinguished from them.

This would be a melancholy flory, if it were the whole of the Hiftory of Humankind; but I hope to convince you prefently, that we have fomething in us that never dies; for it is a certain truth, that we have Souls as well as Bodies, and that the Soul continues to live after the Body is dead.

I can defcribe the parts of the Body to you, for they are visible to the Eye; but the Soul cannot be feen. You may however foon convince yourfelf, that you have fomething in the Body very different from it.

Look at the Animals; they can like us, eat, drink, walk, fleep; like them, (as I faid before) we must be fustained with Food, or our Bodies would perifh. It is the Body then that eats, drinks, walks, fleeps, and at last dies.

Now

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Now have you not found that whilft your Body was perfectly at reft, when you were fitting by yourfelf, that you could recollect a hundred things which you had formerly heard or feen? Cannot you contrive what you will do, even years hence perhaps? Do not you sometimes feel joy, at others, forrow? Cannot you wish and refolve? If you fee any thing in pain or distress, do not you feel compaffion for it? You can understand what other People fay to you, and inform them what you like or diflike; can every day learn to know fomething more; can fay to yourfelf, how can fuch and fuch things be fo and fo? and then think about them, till perhaps without being told, you discover what you want to be informed of. Or should it be a subject above your capacity, you can afk information of others, make them know your meaning, and understand their explanation of things. Now

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Now these operations of the Soul are infinitely above what the most fagacious Animal is capable of. They just know how to provide for themfelves, that is to fay, to feek for food and to eat it; to take a tender care of their little ones, for a certain time; and to use those Weapons of defence which they are furnished with, against their natural enemies; but are no wifer, at Twenty years old, than at Twenty Months.

You do not fee them examining any thing in nature any farther than to look and fmell at it, in order to difcover whether it is good for them to eat. You never hear them converfing together, and telling their thoughts and opinions, as mankind do; becaufe they have not thinking Souls. They have not REASON, they cannot invent Arts and Sciences. Every Bird of the fame kind builds its neft alike, which fhews that they do not think as we do;

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do; for if they did, there would be variety in their Works.

Mankind are for ever producing new and curious Inventions. There is fcarcely any thing in Nature, but one person or other can make an ingenious use of it : For instance, what Animal in the World could have made this Watch ? fee how extremely curious the infide of it is. If I were capable of explaining its entire construction, you would not be able to understand it. Thus much you can however comprehend, that it is composed of a number of Wheels and other parts; here is a delicate steel chain; there is a Spring; here a Pendulum; now all thefe things together, when it has been wound up by the Key, till the Chain is all wound upon that part, keep in motion till the Chain gets all on this place, which is twenty-four Hours. Under the Glass you see is a Dial-plate, with the twelve hours mark-

marked on it, and little dots between; each of which stands for a Minute. There are two hands moved by the Spindle which comes up in the middle; that is put in motion by the Works withinfide. These hands point out, one the Hour of the Day, the other the part of the Hour which has elapfed at the time you look at the The fhortest hand only Watch. moves from one large figure to another in one hour, the other goes from twelve to twelve in the fame time, which is fixty minutes, fo that you may always know what time of the Day or Night it is, by looking at the Watch: Indeed you have long been able to tell what it is o'clock, and therefore I shall say no more about it : but do not you think that the making fuch a machine required a great deal of thought and contrivance?

If we had only Bodies void of Thought, as the Animals have, no fuch fuch thing could ever have been made; no, not fo much as a Chair or a Table: for without the power of thinking, we could not have applied the Creatures to our ufe.

Now if we think it neceffary to do what we can to nourifh and preferve thefe Bodies, which are of fo perifhable a nature, that they may be cut off in a moment, or if they efcape from being deftroyed by Difeafes or Accidents, will most certainly decay with Old Age, and fink into the Grave, is it not of infinite confequence to us to ftudy what we can do for the Soul, which I hope I have convinced you is fo much fuperior to the Body.

I told you that the Soul fhall live for ever; I can with equal truth affure you, that it depends on ourfelves whether it fhall be happy or miferable to all Eternity, that is, for a life without end.

I have

I have often, my Dear, informed you, that there is a Divine Being called God, who made you and all things in the World; and you know I have taught you to pray to him Night and Morning. I forbore to fay much to you concerning him, becaufe I knew the fubject was too fublime for your tender Mind. I flatter myfelf, you are now able to understand me, and am eager to tell you of his Goodnefs. Young as you are, I think I can convince you, that there really is a God.

Suppose you had found a Watch, difcovered its use, and how admirably it was adapted to ferve the purpose, could you suppose that it had made itfelf?

Should you look at a Houfe, could you imagine that it grew out of the ground, when you have feen Carpenters, Bricklayers, and other Artificers employed in building it? Now what must you think of the World and

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and its productions, of which you know we have lately taken a general view?

It is not in the power of the wifeft Man in the World to make even a blade of Grafs, and still lefs must be expected from the Animals, which, as I have shewn, are inferior to us. It is evident, from the construction of every part of Nature, from the nobleft to the most infignificant, that they are all admirably formed; they must therefore have been the work of fome wife, powerful BEING, infinitely our fuperior. We can no otherwife account for our existence, than by suppofing that we are likewife the work of his Hand, for we know we did not create ourfelves, nor have we yet met with any creature that could form us.

As we did not make ourfelves, neither can we preferve our Lives. And even our REASON, which fo eminently

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nently diftinguishes us above all other Creatures in the World, would be of no use towards fupplying our bodily wants, unlefs the World had been furnished with materials to exercise it with; but the World affords us all we want : ALMIGHTY GOD has been pleafed fo to construct it, that it furnishes fustenance for all the living Creatures it contains; but none have fo large a share of its Blessings as Mankind. We therefore are certainly bound to be thankful to our gracious Creator, for the innumerable Benefits he has beflowed on us; but how shall we find a way to pleafe him?

Do not you think, Charlotte, that it would be a happy thing if God would vouchfafe to publish his will to Mankind, and teach us the Duties he requires us to perform? This, my I Dear, Dear, he has done. The BIBLE-contains all that is neceffary for us to know and practife, and is truly called the Word of GOD, though penned by Men.

The first five books were written by Moses, and I propose to tell you how he came to write them; but shall not relate his whole History, as you will shortly read it in the Scriptures; only I am defirous of convincing you, that Moses was commanded by the AL-MIGHTY to write it.

The People of Ifrael had for a confiderable time been treated in the moft opprefive Manner by the Egyptians, as you will read in the BIBLE, where you will also learn how they came to be in Egypt.

GOD ALMIGHTY faw the cruelty that was exercifed upon them by command of Pharaoh the King, and as he was a very wicked man, refolved to make fuch an example of him, as fhould ferve for a leffon to all fucceeding generations; and at the fame time to perform fuch wonderful Works, as fhould convince all who heard them related, that his Almighty Power is able to do whatfoever pleafeth him; and that as he made all things at firft, they are ftill fubject to his will, and he can reward the Good, and punifh the Wicked in the most aftonishing manner.

Mofes was looking after the Sheep of his Father-in-law on the Mountain of Horeb, when fuddenly the LORD appeared to him in a Flame of Fire, in the midft of a Bufh, and the Bufh burned with Fire, and was not confumed. Mofes knew that it was the nature of Fire to deftroy Wood, therefore he faid, " I will now turn " afide, and fee this great fight, why " the Bufh is not burnt." And when I 2 the

al .

the LORD faw, that he turned afide to fee, he called unto him out of the midft of the bufh, and faid, "Draw not " nigh hither, for the place whereon " thou ftandeft is holy Ground;" and Mofes hid his Face, for he was afraid to look upon GoD.

The uncommon appearance of a Bufh burning with Fire, without being confumed, and the awful voice which he heard, ftruck him with reverence, fo that he dared not continue to look towards the place, fearing he fhould not be able to bear the fight of fo much glory, as feemed to be breaking in upon him.

The great GOD himfelf, my dear Charlotte, is of a Nature fo infinitely fuperior to ours, that whilft we are in the Body, we cannot poffibly fee him, but we may know by his Works, (thofe

(those wonderful Works which I have lately been endeavouring to make you in fome measure acquainted with) that he is prefent every where, and knows all things. But as they are always before our eyes, we are apt to overlook his Hand, therefore when the ALMIGHTY had any particular purpofe for shewing his Power or Goodness, it was ufual for him to make his PRESENCE evident by fome extraordinary appearance which should awaken their attention, and prepare them to receive and execute his Commands; fometimes by a bright and fudden Glory in the Heavens, often by altering the course of Nature; sometimes by sending his holy Angels, or good men called Prophets, to make his Will known to Mankind.

When the LORD had by his Glory, manifested himself to Moses, he commanded him to go to the Peo-I 3 ple ple of Ifrael, and tell them that he would fhortly deliver them from their prefent Afflictions, and lead them into a Land of Plenty and Happinefs; and that he fhould likewife go to Pharaoh, and requeft him to let the people go, that they might ferve the LORD, for they dared not to ferve him publickly in that Land, as their Fathers had done, becaufe the Egyptians would have killed them for it.

And Mofes faid, "Who am I that I " fhould go unto Pharaoh, and that " I fhould bring the Children of If-" rael out of Egypt?" for he was a Man who had a very humble opinion of his own abilities. And God faid, "Certainly I will be with thee." Mofes was ftill apprehenfive, that *bis* Word would not be taken on fo important a fubject, therefore God vouchfafed to give him an immediate proof, that he would grant him the means of convincing

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vincing them of his veracity, by performing fuch wonderful things as none but the *Almighty Power* could effect; for he commanded him to caft down a little Rod which he held in his Hand to the Ground, which immediately became a Serpent; and he was ready to flee from it, when the LORD commanded him to take it by the tail, and it became a Rod again.

Then he commanded him to put his Hand into his Bofom and pluck it out, when he found it covered with a Leprofy, which was a filthy Difeafe, very difficult to cure; but immediately on his thrufting it into his Bofom and taking it out again it recovered, and was as clear as his other Flefh.

Then the LORD commanded Mofes to go and do the fame before the Children of Ifrael, and if they were not fufficiently convinced by these Miracles that he came on God's Errand, I 4 to

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to take fome of the Water out of the River, and pour it upon dry Land, and it fhould immediately become Blood.

But notwithstanding that Mofes was sensible of the immediate Presence of God, and faw fuch proofs of his Power, he could not get the better of the timidity of his temper, and was fill apprehenfive that he should not gain credit from the Israelites, because he faid he was flow of speech. But the LORD faid, "Who maketh " the dumb, or deaf, or feeing, or " hearing, do not I, the LORD ? Now " therefore go, and I will be with thy " Mouth, and teach thee what thou " fhalt fay;" but Mofes continued to entreat the LORD that another Perfon might be fent; he was therefore permitted to take Aaron his Brother, and the LORD promifed to put Words in their Mouths, and

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and teach them what they should do.

Then he commanded Aaron, who was at a diftant place, to go and meet his Brother, who was rejoiced to fee him; fo they went together, and affembled the principal Perfons amongft the Ifraclites, when Aaron spake the Words which the LORD had fpoken unto Mofes, and they wrought the Signs of turning the Rod into a Serpent, and the Hand becoming Leprous, before all the People, who believed; and when they heard that the LORD had feen their Affliction, they bowed their Heads and worfhipped; and their Hearts overflow. ed with Thankfulnefs, Hope, and Joy. Ways companies to the Long that

Afterwards Mofes and Aaron went and told Pharaoh, that the Lord God I 5 requir-

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required that the People of Ifrael might be permitted to go and ferve him in the Wildernefs; but Pharaoh faid, "Who is the LORD, that I fhould " obey his voice to let Ifrael go? I " know not the LORD, neither will I " let Ifrael go;" and he reproved Mofes and Aaron for hindering the People from their Work, and laid feverer tafks on them than before. GOD ALMIGHTY permitted him to do fo, that the deliverance he was going to bring about might appear the greater.

The People however were extremely dejected, and began to reproach Mofes and Aaron as the authors of these new Calamities; and Moses complained to the LORD, that fince he had been in to speak unto Pharaoh, he had done more Evil to the People, and that they were not delivered at all.

They

They had already feen fufficient to convince them, that God was able to perform his promise, and the History of their Forefathers, Abraham, Isaac, and Jacob, abounded with instances of his loving-kindness towards those who put their truft in him; therefore it was a great Crime in them to Doubt; but it pleased the ALMIGHTY to continue his Favour to them notwithftanding; and he commanded Mofes to return again, and defire Pharaoh to let them go, and if he required a Sign that the LORD had fent them, Mofes should take his Rod, and it should become a Serpent; and they did fo; but they hearkened not unto them; they therefore departed, and the next day went to him again; when, as the LORD commanded him, Aaron stretched forth his Rod over the Waters of Egypt, and all the River, and every stream of Water became Blood; likewife all that I 6

that was in Veffels of Wood or Stone in their Houfes, fo that the Egyptians could not drink of the Water of the Land; and were greatly diftreffed.

This did not turn the obdurate Heart of Pharaoh; for when Mofes came again to demand leave of the Ifraelites to depart, he ftill refufed. So Mofes and Aaron were ordered to repeat the demand from day to day; and GoD conftantly wrought fome great miracle to teftify that they were commiffioned by him.

But you will read the account of them very fhortly yourfelf in the Bible. I fhall therefore only fay at prefent, that Pharaoh was at laft fo terrified, that he was himfelf urgent for their departure, but did not believe and repent; for no fooner were they gone than he determined to purfue them, and and accordingly gathered his Army together, and followed them.

In order to encourage the Ifraelites to put their truft in GoD, the ALMIGH-TY made his presence visible to them in a remarkable Cloud by Day, and a Pillar of Fire by Night; which in the beginning went before to direct their journey; but when they were in danger of being overtaken by the Enemy, removed and flood behind them, and was a Light by night to the Israelites, but to the Egyptians a Cloud of darkness. Pharaoh and his Hoft overtook them at the Red Sea, and there they must have been entirely deftroyed, but that the LORD continued to perform his Wonders for them. Mofes ftretched forth his Rod, and God caufed the Sea to go back by a ftrong Wind, and made a path of dry Land in the midft of the Waters. through

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through which the Ifraelites paffed fafely, having the Waters like a Wall on the right-hand and on the left; but as foon as Pharaoh and his Hoft were got into the midft of the Sea, the LORD faid unto Mofes, "Stretch forth " thy Rod," which he did, and the Waters clofed in on the Egyptians, and they were all drowned.

I fhall not now relate to you, my Dear Charlotte, what afterwards befel the Ifraelites. What I have told you was with a view to fhew you, before you begin to read the Holy Scriptures, that the Writer of the firft part of them was really no common Writer, but was commiffioned by GoD to inform the Ifraelites of their original, and to communicate a fet of Laws which they were to obey in order to pleafe him.

After a great variety of events the LORD commanded Mofes to go up to Mount Sinai, and there he told him to to write the two Tables of Laws which are ftill called the Commandments, and make a part of our Duty at this time. You know them by heart, and I shall foon explain them to you.

Mofes wrote his Five Books, called Genefis, Exodus, Leviticus, Numbers, Deuteronomy, during the lives of the Perfons who had been fo miraculoufly delivered, therefore had they not been strictly true, they could not poffibly have gained credit; for how could any Man perfuade fuch a multitude to think that they had been delivered from Bondage, paffed through the midst of the Sea, heard the voice of God speaking unto them in Thunder, beheld his Glory which fo greatly affected them, that they entreated not to fee it a fecond time, left they fhould die: Could, I fay, any Man in his fenses have been prevailed on to let those

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those things pass for Truth if he knew them to be false; and would they have been perfuaded to set apart particular Days in the Year in remembrance of what had never happened? Now, it is most certain, that the Ifraelites did believe the relations of Mofes, observe the Laws he gave them, and commemorated the Mercies they had received, and taught their Children to do the fame, with their Reafons for doing fo. Many of these Laws and Ceremonies are kept by the Jews (who are descendants of the Israelites) to this very Day, and will continue to be fo till they all become Chriftians, icy and has a second of the mode

I have much to fay to you concerning the Jews, but fhall be better underftood when you read in the Bible who they were. I hope, Charlotte, you are difpofed to believe that Mofes was not a deceiver, but really fent from

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from God; we will therefore tomorrow begin to read the HOLY BIBLE, and I hope you will daily increafe in the knowledge of GOD, and ever continue his true and faithful Servant, and then you will be intitled, through his infinite Goodnefs and Mercy, to a never-ending Life of perfect Joy and Happinefs.

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The following Advertisement is extracted from the Conclusion of the above Work.

HAVING with the utmost care and attention brought down this work to the time of our SAVIOUR's birth, I must take a fhort leave of my readers, as the NEW TESTAMENT with Annotations is not yet ready for publication; but I propose to complete

complete it with as much expedition as is confiftent with the importance and difficulty of the undertaking.

I cannot close this volume without earneftly entreating those persons who have the care of youth to favour my defign with their particular confideration before they reject it as too voluminous and expensive; fince it is evident, from the impiety and immorality of the age, that the usual methods of communicating the first principles of Christianity to young minds are frequently ineffectual. Were the SCRIPTURES properly explained, and fufficiently enforced in the course of education, they would infallibly produce the most falutary and beneficial effects, as they contain a fystem of morality derived from the fountain of divine truth, which would ferve as a standard whereby to regulate the judgment in other studies, respecting the examples which are worthy of imitation, and the fentiments which may be fafely adopted. An early acquaintance with those glorious promises which give hopes of immortal happinefs, and with those heavenly precepts which inftruct us how to obtain it, would furely be the best fecurity against the dangerous

genous allurements of a vicious and diffipated world: Thus inftructed, our Youth would no longer fall an eafy prey to the Infidel and the Scoffer, nor dare with profane lips to deride the facred Word of God.

This work was compiled with a view to facilitate the acquifition of Christian Knowledge in Schools and Families, without engroffing the time necessary to be employed in the attainment of claffical and other polite accomplishments, or without interrupting the performance of domeftic duties. The cuftom which too generally prevails, to the misfortune of the rifing generation, of discontinuing the daily use of the BIBLE, will, I fear, operate against me; but those who reverence the SCRIPTURES, will perhaps be induced to honour my performance with a place at least in their School Librararies, and receive it as an humble affiftant to their Sunday evening's inftruction.

Some perfons entertain an idea, that every religious work, intended for the use of young readers, should be *short* and *concife*; but if I may, without being thought arrogant, prefume on the experience of many years, I will venture to fay, that at an early age, children dren may be invited to dwell with pleafure on every part of Sacred Hiftory; nor do I believe it is poffible to give them that love for divine fubjects, which is neceffary in order to make their duty their delight, without a particular explanation of the great chain of events, from the Creation to the Redemption of mankind, as related in the BIBLE. To a neglect of this may reafonably be imputed the deplorable ignorance of numbers in fpiritual concerns, who, in refpect to human affairs, are well inftructed.

I have already offered my reafons for giving the hiftory in the very words of the infpired writers, and hope it will be found, from this circumflance, preferable to the ufual fubflitutes, denominated *Hiftories of the Bible*, &c. For even admitting that compilations of this nature may be executed with the utmost elegance of human art, yet the very beft must fall infinitely flort of their divine original, degrade the fublime fubject, which no language but that of holy infpiration can fuit; and, by fatisfying curiofity, rather tend to draw the mind from the Scriptures than to conduct it to them.

In felecting from the contents of the facred volume, I have attempted to difplay the the infinite perfection of the divine attributes, as well as the peculiar beauty of the hiftorical parts of the Holy Scriptures, and their connection with the prophetic writings, fo neceffary to be known, in order to the right underftanding of the doctrines of Chriftianity; which I truft will render it useful to fuch perfons alfo as have not time to ftudy larger works, or are defitute of the means of procuring them.

In the Annotations I have fludioufly endeavoured to avoid whatever might tend to puzzle the mind, or raife doubts and objections. In the Supplemental part I have carefully reftrained myfelf from expatiating too largely on the hiftory of those nations which were connected with the Jews, thinking it best to keep the attention fixed to the principal object.

Accustomed to meet with indulgence from the candid public, I promise myself a continuance of it; and shall exert my best endeavours to execute the subsequent part of this work in such a manner as to convey a comprehensive knowledge of the doctrines of Christianity, and the character and example of our blessed SAVIOUR.

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