IV. An Extract of several Letters from Cotton Mather, D.D. to John Woodward, M.D. and Richard Waller, Esq; S. R. Secr.

HE first Letter directed to Dr. Woodward, is dated at B ston in New England, Nov. 17. 1712. In this the Writer gives an Account of a large Work in Manuscript, in two Volumes in Folio, but does not name the Author. This. according to the account of it, is a large Commentary upon fome Passages in the Bible, interspers'd with large Philosophical Remarks, taken out of Natural Historians, and the Observations of himself and others, more particularly as to Matters observ'd in America, whence he entitles the Work. Biblia Americana. This Work Dr. Mather recommends to the Patronage of some generous Mecanas, to promote the Publi-As a Specimen of it, he transcribes a Passage out of it, being a Note on that Passage in Gen Chap. 6. v. 4. relating to Giants; and confirms the Opinion of there having been, in the Antediluvian World, Men of very large and prodigious Statures, by the Bones and Teeth of some large Animals, found lately in Albany in New England, which, for some Reasons, he judges to be Human; particularly a Tooth brought from the Place where it was found to New Tork. 1705. being a very large Grinder, weighing 4 pounds and three quarters, with a Bone, supposed to be a Thigh-bone, 17 Foot long. He also mentions another Tooth, broad and flat like a fore-Tooth, four Fingers broad: the Bones crumble to pieces in the Air after they are dug up; they were found near a place call'd Claverack, about 30 Miles on this He then gives the Description of one, which he resembles to the Eye-Tooth of a Man; he says it has four Prongs, or Roots, flat, and something worn on the top:

upright on its Root, and almost thirteen inches in circumference; it weightd two pounds four ounces Troy weight. There was another near a pound heavier, found under the Bank of Hudson's River, about sifty Leagues from the Sca, a great way below the Surface of the Earth, where the Ground is of a different Colour and Substance from the other Ground, for seventy five Foot long, which they suppose to be from the rotting of the Body, to which these Bones and Teeth did, as he supposes, once belong. It were to be mish'd the Writer had given an exact Figure of these Teeth and Bones.

The second Letter to the same Person, is dated Nov. 18. 1712. from Boston, as all the following are. In this he treats of the Plants of America; and, in the first place, offers a Conjecture of his concerning the Shittim Wood, mentioned in the Sacred Writings to be made use of for the Ark, &c. It is faid to be not as most other Woods, subject to rot: He judges that it was the black Acacia; that the Gopher Wood was the Juniperus arbor tetragonophyllos, frequent in the East-Indies, &c. He observes that the Indians often perform very great Cures with their Plants; of which there is a great variety, differing from the European, which he promises a Catalogue and Description of; and, for the present, instances in some. As, a Plant efficacious in curing Instammations, whence they call it Antierispelas; it grows plentifully in the Woods: A Chymical Oil extracted from it, taken inwardly, does Wonders in absorbing scorbutick Salts. Another Plant, which goes by the Name of Partridge-berries, excellent in curing the Droply; a Decoction of the Leaves being drank several days as a Tea, discharging a vast quantity of Urine, as long as the Disease lasts; after which it may be drank without provoking Urine observably. Gouty Persons drink it with benefit.

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The Root call'd the Bleeding Root, curing the Jaun-

Another for Gangrenes, of which he does not give the Name.

Another Specifick for the Bite of the Rattle-Snake, and another for Quinsies, or fore Throats. A Plant, call'd by the Indians, Taututtipang; infallible for the Lues Venerea, the Root being used in a Decoction, and drank half a Pint; a Cataplasm of the same Root, bruised, apply'd to the Ulcers, cures them also.

A Thistle call'd the Boar-Thistle; very short and prickly, with a large and long Root. To this they add a Root, call'd the Cancer Root, and a sort of Devils Bit: A Decoction of which three Roots is a Cure for the Ring's-Evil, tho' very far gone; a small quantity being drank every day, and the bruised Roots apply'd to the Scrophulous Tumors.

But of these American Plants he promises a larger Crop.

The third Letter relates chiefly to the Birds of that Country; where, he says, they have many of the same Species with ours in England. He mentions very large wild Turkies, some weighing 50 or 60 pound, but the Flesh is very tough and hard. He takes notice of a very large Eagle with a great Head, soaring very high, as all of that Genus do. As to the Itinerants; he takes notice of vast Flights of Pigeons, coming and departing at certain Seasons: And as to this, he has a particular Fancy of their repairing to some undiscovered Satellite, accompanying the Earth at a near distance.

The next Letter relates to Antipathies, and the Force of the Imagination. As to the first, he says, a Gentlewoman of his Neighbourhood swoons upon the seeing any one cut their Nails with a Knife; which if done with a Pair of Scissors has no Essect upon her. The Wife of a Person, vomiting

miting upon seeing her Husband take a Vomic; the Patient that took it being not mov'd, but forc'd to take a fresh Emetic.

Some Histories are here related of the Macula Materna. One particularly, of a Woman longing for Peas, but refusing to gratistic her desire, for sear of a fort of Bug, with which at that time most of their Peas were insested; this Woman's Child, when born, had an Excrescence on the Forehead, resembling one of those Peas, with a black Speck, as the buggy Peas had, which after some time, dry'd away, and shell'd out they fancy'd, as the Bugs are observed to leave the Husk of the Pea.

This Letter concludes with an account of a Stone, generated under the Tongue, near the Root.

The fifth Letter gives an account of some monstrous Births, but nothing very observable.

The fixth Letter relates the Stories of some Persons that had Informations of Medicines for the Distempers they lay under, in their Dreams; these Accounts relate little to Natural Philosophy.

The next, and last to Dr. Woodward, relates the Cures of several Wounds in Persons, which were judg'd mortal. In this little of Philosophical Information.

The next Letter, being the first to Mr. Waller, is dated at Boston, Nov. 24. 1712. In this the Writer observes, in the first place, That the Indians have no Division of Time, except by Sleeps, Moons and Winters. Altho' the Indians have not divided or distinguished the Stars into Constellations, yet it is observable that they call the Stars of Ursa Major, Paukunawaw, that is, the Bear; and this long before they had any Communication with Europeans. He says, there

there is a Tradition among them, that in November, 1668, a Star appear'd below the Body of the Moon, within the Horns of it. In the next place he mentions the Evening Glade; first taken notice of by Dr. Childrey, to be constantly observ'd there in February, and a little before and after that Month; adding, that the Cause of that Appearance must be sought for above the Atmosphere. Then he gives a new Method of his own for finding the Julian Period, adding a Table for that purpose; which concludes this Lettet.

The next relates the Appearances of several unsommon Rainlows and Mock Suns. On the 2d of January, in a clear Sky, but very cold; the Sun was from Ten o' Clock, for near Three Hours after, attended with four Parhelia, in the midst whereof were two Rainbows.

About fix Weeks after this, in a Day much colder than used to be at that time of the Year, the Air a little hazy, a little after One o' Clock, for about half an hour, four Mock-Suns were seen.

He observes, that these Appearances with them are of great varieties, each usually differing in some respect from the other.

The next Letter dated, Nov. 26th to the same Person, has the Relation of a strange Discovery of the Murder of a Person in England, to his Brother Joseph Beacon, at that time at Boston, in a Dream; the Person wounded appearing with the Wound on his Head; with the Attestations of several Persons, as to the Truth of it. The Information by the Dream was on the 2d of May, 1687, about Five o' Clock in the Morning; on the very same Day his Brother dy'd at London, of the Wounds he had receiv'd in April before: Of which Missfortune his Brother Joseph Beacon neither had, nor could have any notice, till the next Communication by Shipping, towards the latter end of June sollowing; when he had a Letter of his Brother's Death, and the Cause of

it, agreeable to his Dream, but this not directly relating to Natural Philosophy, I omit the Particulars, tho' the Relation seems to be well attested.

The following Letter sent likewise to Mr. Waller, treats chiefly of the Rattle-Snake, hinting at the occasion of its Name. from the Rattles in its Tail, in which he favs are sometimes twenty of those loose Rings, tho' he does not come in with the Opinion, that one is added every Year. Next follow thefe Observations That the more Northerly they travel, these Snakes are less numerous, as well as less venomous; nor as it is faid, are any seen so the North of Merimack River, which is about 40 miles North of Boston. Here he relates a Story. as he fays, constantly affirmed by the Indians, that these Snakes frequently lie coiled at the Bottom of a great Tree, with their Eyes fixed on some Squirril above in the Tree; which tho' feeming by his cries and leaping about, to be in a Fright, yet at last runs down the Tree, and into the Jaws of the Devou-Then he relates, that the Winter aboad of these Snakes is in the Clefts of inaccessible Rocks, from whence in the Spring, they come forth a Sunning themselves, at first very feeble, which is their chief time of destroying them. time the Cystis or Gall bladder in these Snakes is full of an acid azure coloured Juice, which they squeeze out into a Glass, but it is so Spirituous, that if the Glass be not immediately stopt, it will soon evaporate; this Liquor therefore they mix with a convenient quantity of powder'd Chalk or Indian Meal, and use it as a proper Medicine against the venemous Bite of this Snake; some have named it Trochifed Connesticationi, from the Connecticot Colony. 'Tis observable when the Summer Hears come on. the Snakes have no longer this azure Liquor in their Gall-Bladders, in which there is only found a black thick Sediment. of no known use, at which time they think the forementioned spirituous Juice is carried to, and lodged in their Gums. and so conveyed or thrown by the hollow of the Teeth into the Wound, when they Bite, having received another Dige. stion.

stion, and higher Exaltation, by passing thro' several Strainers and Glands before it arrives to the Gums; as an instance of the virulence of this Liquor, he tells us, that a Traveller killing one of these Snakes, suffered the inraged dying Viper, to bite the end of his Switch, with the lashes of which he had disabled him; and a Fly by chance disturbing one of his Temples as he rod on afterwards, he rub'd his Temple with the other end of the Switch, which as he relates it, immediately caused his whole Head to swell to a great excess, the Poison as he supposes permeating the whole length of the Switch. He adds another relation as to the penetrating quality of this Poison, a Person provoking a Rattle-Snake to bite the Edge of a broad Axe he had in his Hand; the colour, of the Steeled part bitten, was immediately changed, and at the first stroke he made with it in using his Ax, the so discoloured part broke out, leaving a gap in his Ax. But to return to the Trochies made of the Gall, he fays it is a Cordial sudorifick, and so good an Anodine, that he knows some who take 3 or 4 Grains of it to compose them to rest after Travel. 'Tis good in all Fevers, especially the Malig-Tis an infallible Remedy for Obstructions incident to Women upon catching cold in Childbed Being taken in a convenient Quantity, 12 Hours before the Fit, it certainly cures a Quartan Ague. The Dose is 14 Grains more or less according to the Circumstances of the Patient in any Vehicle. The next Letter treats of the Effects of Thunder and Lightning very frequent with them, which from its frequent destroying Animals, without any visible Hurt on the external Parts. he compares to the Jewish Punishment of pouring melted Lead down the Throats of the Condemn'd which they call'd combustio anima. Tho' he likewise observes some have had their Hair finged with Marks on their Skin like those made by small Shot; some have had their Bones made limber like a Grissle. The Captain of their Castle was found Dead in his Bed after a storm of Lightning without any apparent Hurt. Here he relates a Passage of which an Account has sometime fince

fince been given in the Philosoph. Transact. but is here confirm'd That July 24th, 1681. A Ship whereof one Mr. Lad was Master about 100 Leagues from New England in Lat. 38. met with a violent storm of Thunder, which did much Damage to the Ship; at which time, a bituminous Matter fell on the Ship burning with that Violence, as not to be extinguish'd with Water till it was all burnt out, smelling strongly like fired Gunpowder; and when they came to observe the Stars at Night, they found the Polarity or Direction of their Sea-Compasses to be changed; the North-Point being turned to the South, and so continued to do for the rest of the Voyage for a 1000 Leagues. He adds farther, that one of these Compasses continues to do so still, and was upon his Table before him at the time of his writing this present Letter. He makes a Quere whether this may be accounted for by Mr. Boyl's Experiment of heating a Loadstone red-hot, and by altering the Polition in which it was cool'd, he could change its Polarity. Which some may say, might happen to this Needle, supposing it was made red-hor, and turned upon its Center in the Storm.

From Thunder he proceeds to Earth-Quakes, which tho' he fays they have not done with them the Mischiefs frequent in Sicily, Italy, &c. yet they have had several very sensible and affrightning. In the Year 1663, they had 6 or 7 violent shakes in the space of 3 Days: a Town lying on the River Connecticut, has had scores of them in a Year, for many Years together. The Indians affirm, that several Rivers have not only been stopt in their course and diverted, but some wholly Iwallowed up by Earth-Quakes. He farther adds, a passage out of Josselin who dwelt in the Neighbourhood, that in the Year 1670, at a place called Kenebunch, near the fide of the River, a piece of clay Ground was thrown up over the tops of high Oaks, growing between it and the River, which it thereby stopt, and left a Hole in the Place from which it was thrown forty Yards square, &c. Next as to Storms of Hail, he relates that they have had very extraordinary ones, infomuch that they have lain 3 or 4 Foot thick on the Ground, fome some as big as Hens Eggs, others five times as big. He mentions, as an Accident sometimes happening to them in the Winter, that it has rain'd plentifully, and at Night frozen fo extremely, that the weight of the leicles has broken the Limbs of the Trees, and not unfrequently split their Trunks. Tho' they have not those Hurricanes to which the Caribbe Islands are subject; yet they have had Whirlminds, or Guss, drive along a particular narrow Tract, for divers Miles together, with a violence not to be opposed by any thing on Earth: that if their Towns had stood in the way, they must undoubtedly have been destroy'd. Of these, he says, a thick dark, small Cloud has arose, with a Pillar of Light in it. of about 8 or 10 Foot Diameter, and past along the Ground in a Track not wider than a Street, horribly tearing up Trees by the Roots, blowing them up in the Air like Feathers, and throwing up Stones of a great weight to a confiderable height in the Air, throwing down all in its paffage: the Noise this Cloud made was so great all the while. that the Noise of the Mischiefs done by it, was thereby quite drown'd.

The remainder of this Letter relates to some very ancient Remains, at a Place call'd Ammuskeag, a little above the hideous Falls of Merimack River. There is a huge Rock in the midst of the Stream, on the Top of which are a great number of Pits, made exactly round, like Barrels or Hogsheads of different Capacities, some so large as to hold several Tuns; the Natives know nothing of the Time they were made; but the Neighbouring Indians have been wont to hide their Provisions in them, in their Wars with the Maqua's; affirming, God had cut them out for that use for them. They seem plainly to be artificial.

In the next place, he gives an account of a strange Inscription found on a Rock, in these Words. At Taunton, by the side of a Tiding River, part in part out of the River, there is a large Rock, on the perpendicular side of which, next to the Stream, are 7 or 8 Lines, about 7 or 8 Foot long, and about a Foot wide, each of them ingraven with unaccountable Characters, not like any known Character. He has not yet been able to procure the whole, which he hopes to be Master of before long, and has herewirh sent a Copy of two of them, promifing the rest; they are as is represented, Fig. 8.

The last Letter of this Collection, dated Nov. 29. 1712. gives a Calculation of the possible Increase of the Descendants of Adam; and from this Introduction proceeds to the Account of some long-liv'd Persons there, as likewise of their Fruitfulness. He says, 'tis no rare thing with them to have an aged Gentlewoman see many more than 100 of her Offspring. He mentions one Woman that had 23 Children. of which 19 liv'd to Man's Estate. Another that had 27; another 26, of which 21 were Sons, one whereof was Sir William Phipps; another 39 Children. Here he gives several Instances of Persons living, with them, to above 100 Years of Age. One Clement Weaver lived to 110. his Wife being upwards of 100. This Man, to the last Year, could carry a Bushel of Wheat to the Mill, above 2 Miles. relates the Case of an old Man, above 100, that lost the memory of several of the latter Years of his Life, but very well retain'd the Remembrance of what past in his younger days. I do not find, by any of these Relations, that the Persons observ'd any Regularity, or Method, in their manner of Diet, Exercise, or the like.

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Philosoph, Trans. N. 339. Fig. 3 Fig. 5.