

EULOGIUM

ON

BENJAMIN FRANKLIN,

L. L. D.

PRESIDENT OF THE AMERICAN PHILOSOPHICAL SOCIETY,
HELD AT PHILADELPHIA, FOR PROMOTING USEFUL KNOWLEDGE,
FELLOW OF THE ROYAL SOCIETY OF LONDON,
MEMBER OF THE ROYAL ACADEMY OF SCIENCES AT PARIS,
OF THE ROYAL SOCIETY AT GOTTINGEN,
THE BATAVIAN SOCIETY IN HOLLAND,
AND OF MANY OTHER LITERARY SOCIETIES IN EUROPE AND
AMERICA;
LATE MINISTER PLENIPOTENTIARY FOR THE UNITED STATES
OF AMERICA AT THE COURT OF PARIS,
SOMETIME PRESIDENT, AND FOR MORE THAN HALF A CENTURY
A REVERED CITIZEN, OF THE COMMONWEALTH OF
PENNSYLVANIA.

DELIVERED MARCH 1, 1790, IN THE GERMAN LUTHERAN CHURCH OF THE
CITY OF PHILADELPHIA,
BEFORE THE AMERICAN PHILOSOPHICAL SOCIETY, AND ACCORDANT TO
THEIR APPOINTMENT,

BY WILLIAM SMITH, D. D.

ONE OF THE VICE-PRESIDENTS OF THE SAID SOCIETY, AND PROCTOR OF THE
COLLEGE, AND ACADEMY OF PHILADELPHIA.

THE MEMORY OF THE DECEASED WAS HONORED ALSO, AT THE DELIVERY
OF THIS EULOGIUM, WITH THE PRESENCE OF
THE PRESIDENT, SENATE AND HOUSE OF REPRESENTATIVES OF THE
UNITED STATES OF AMERICA,
THE SENATE AND HOUSE OF REPRESENTATIVES OF THE COMMONWEALTH
OF PENNSYLVANIA,
THE CORPORATION, AND MOST OF THE PUBLIC BODIES, AS WELL AS RES-
PECTABLE PRIVATE CITIZENS, OF PHILADELPHIA.

PRINTED BY
BENJAMIN FRANKLIN BACHE,
PHILADELPHIA, 1792.

MARCH 4, 1791.

At a MEETING of the AMERICAN PHILOSOPHICAL SOCIETY.

ON MOTION, Resolved unanimously, That the THANKS of this Society be given to the Rev. Dr. WILLIAM SMITH, for preparing and delivering the EULOGIUM, as a Tribute to the Memory of their late illustrious President Dr. BENJAMIN FRANKLIN ; and that he be requested to furnish the Society with a Copy of the same, for publication,

Ordered, That a Transcript of this Resolution be forthwith made, and delivered to Dr. SMITH, by one of the Secretaries.

Extract from the Minutes,

SAMUEL MAGAW, SECRETARY.

TO THE PUBLIC.

THE assistance derived by the Author in the Composition of the following EULOGIUM, from the friendly Communications of some of his learned Colleagues, among the *Officers* of the *American Philosophical Society*, requires his public acknowledgments to be made to them, viz.

To DAVID RITTENHOUSE, Esq. L.L.D. *President* of the Society, for sundry Papers, which have been digested into the Account of Dr. Franklin's Electrical and Philosophical Discoveries, from page 21 to 29.

To THOMAS JEFFERSON, Esq. L.L.D. one of the *Vice Presidents* of the Society, and Secretary of the United States, for his Letter, concerning Dr. Franklin's Ministry at the Court of France, page 32 to 34.

To JONATHAN WILLIAMS, Esq. one of the Secretaries of the Society, for the original Letter, page 38, 39; and some Papers in the Appendix.

To BENJAMIN RUSH, M. D. one of the Council of the Society, for some Sketches of Dr. Franklin's Character, of which the author has availed himself, p. 7.

The Length of Time, which (from some necessary avocations both of the Author and Publisher) has intervened between the Delivery of this Eulogium, and its issuing from the Press, requires an Apology; and might induce an Expectation of its appearing at last in a more improved State. But if either the Author's Leisure or Abilities had permitted the Attempt of Improvements, by a Deviation from the *Original Work*, he would have considered them as unjustifiable on such an occasion; and therefore, it is submitted to the Public Candor, without the least Addition, excepting the Appendix, and the Alteration only of a few Words. His Absence during the Revival of the first four Sheets for the Press, has occasioned the Request of the Reader's Attention to the following

CORRECTIONS, and ALTERATIONS: *

- Page 3, line 11 from bottom, after the word "with" read *to be said*.
 8, 20 dele the punctum after the word "success."
 9, last line, for "present" read *this*.
 10, 23 for "as" read *which*.
 12, 16 after the word "humanity" dele the punctum, and put a —
 13, 1 for "his" read *his press*.
 13, 22 for "transactions," read *the transactions*.
 16, 23 for "completed" read *established*.
 19, 15 for "competitors" read *compatriots*.
 17, 11 of the quotation from Thomson, for "he first applied" read
 (of nature be applied).
 29, last line, read "was for ages past known only."
 39, line 5 from bottom, for "were" read *were*.
 For "condolence" read *condolence* in several places.

* The Reader will also please to note, that the Editor, having promised the Author, that the work should appear on or before the first of March, hastened to perform his promise, notwithstanding the Author's absence; tho his attendance, indeed, at the time was essential, as he had the chief part of the manuscript in his possession. — This will account in some measure for the necessity of an Errata.

EULOGIUM on Dr. FRANKLIN.

Citizens of Pennsylvania! Luminaries of Science!

Assembled Fathers of America!

HEARDED you not that solemn interrogatory?

Who is *He* that now recedes from his labours among you?

What Citizen, super-eminent in council, do you now deplore?

What Luminary, what splendid Sun of Science, from the hallowed walks of Philosophy, now withdraws his beams?

What Father of his country, what Hero, what Statesman, what Law-giver, is now extinguished from your Political Hemisphere; and invites the mournful Obsequies?

Is it *He*—your *FRANKLIN*?—It cannot be!—Long since, full of years, and full of honors, hath *He* submitted to the inexorable Call, and proceeded on his fated journey. From west to east, by land and on the wide ocean, to the utmost extents of the civilized globe, the tale hath been told—That the venerable *Sage of Pennsylvania*, the *Patriot* and *Patriarch* of *America*, is no more. With the plaudits of the Wise and Good; with
B the

the Eulogies of whole* nations and communities, *He* hath received his dismissal, and obtained the Award of Glory— “ As a Citizen, whose genius was not more an ornament to human nature, than his various exertions of it have been precious to Science, to Freedom and to his Country†.”

What new occasion, then, (methinks I hear it enquired) invites the present solemnity, and convenes this illustrious assembly of Citizens, Philosophers, Patriots and Law-givers? Must it be said in answer, “ That, after the name of *Franklin* hath been consecrated to deathless Fame in the most distant countries, *The American Philosophical Society* are now, for the first time, assembled, to pay the tribute of public homage, so long due to the memory and the manes of their beloved Founder and Head?”

On me ! on me, I fear, must the blame of this delay, in some degree, fall ! On me, perhaps, a much greater blame will fall, than of a delay, (rendered unavoidable, on my part, by some mournful family-circumstances) I mean the blame of having attempted a duty, which might have been better discharged by other members of this Society, and at the time first proposed. Yet

* See the Eulogiums of the *Abbé Fauchet* and *M. de la Rochefoucault*, before the Deputies of the National Assembly of France and the Municipality of Paris.

† See Mr. *Madison's* Motion, and the Act of the Representatives of the United States of America in Congress, for wearing the customary badge of mourning, for one month, on occasion of his death.

Yet I know not whether this delay is to be accounted inauspicious to the subject before us. There are some phœnomena so luminous, that they dazzle and dim the sight, at too near an approach ; some structures so grand, that they can be beheld with advantage, only at a distance ; some characters so interesting, that they can be duly appreciated, only by time.

The truth of this remark hath been feelingly acknowledged, and finely described, by the celebrated *Pericles*, in his anniversary commemoration of the *Athenians* slain in battle.

“ It is difficult,” says he, “ to handle a subject judiciously, where even probable truth will hardly gain assent. When the debt of public gratitude is to be paid to the memory of those, in whom whole communities have been interested, their nearest relatives, those who have borne a share in their illustrious actions, enlightened by an intimate acquaintance with their worth, warm in their grief and warm in their affections and praise, may quickly pronounce every Eulogium to be unfavorably expressed, in respect to what they *wish* and what they *know* to be the truth ; while the stranger pronounceth all to be exaggerated, thro’ envy of those Deeds, which, he is conscious, are above his own atchievement :” For men only endure with patience the praise of those actions, in their cotemporaries, which their self-love represents as within their own reach. But Time mellows a character into true relish, and ripens it into venerable beauty. The Public, indeed, may sometimes too hastily bestow, and may likewise too long withhold, the tribute of applause
due

due to just merit ; but, in the latter case, will always make full amends, and decide at length with solidity of judgment, assigning to every Worthy his true place in the Temple of Fame.

It seldom happens, however, that they who are first called to give celebrity to the actions of Great Men, are placed in that exact situation, either in respect to time or point of view, which may enable them to delineate a whole Character, in all its proportions and beauty. This is a work, of all others, the most difficult in the performance ; nor is the difficulty lessened by the acknowledged lustre and eminence of the Character in view. And from hence it hath happened, perhaps, that, in the Euloge and Panegyric, but few of the *Moderns*, and not many of the *Ancients*, have been successful. While they have been striving to weave the *garlands* of others, their own *laurels* have withered and dropt from their brow !

Yet, neither the risque of character, nor the difficulties of the subject, ought to deter us from attempting, at least, to pay the honors due to transcendent merit. The inimitable *Longinus* furnishes our excuse—

“ In great attempts, ’tis glorious even to fail—”

THE desire of Fame and posthumous Glory, “ grasping at ages to come,” as it bespeaks the native dignity of the Soul of Man, and anticipates his existence in another world, is also the most powerful incentive to moral excellence in this world. It is for the interest of Mankind that so divine a passion should be cultivated, rewarded, and held up for imitation. The neglect of it
would

would have an unfriendly influence on Virtue and Public Spirit. The wisest and most renowned nations have not only voted thanks and triumphs to their illustrious citizens, while *living*; but have celebrated them in Eulogies when *dead*; and erected Altars of Virtue and Monuments of Honor, to perpetuate their names to succeeding ages and generations.

Thus did *Greece* and *Rome*, in the best days of their Republics; and it was the “manner of the *Egyptians*, the fathers of Arts and Sciences, not only to celebrate the names and actions of their departed worthies, but to embalm their bodies, that they might long be kept in public view, as examples of virtue, and, altho’ dead, yet speaking.” It was also an established custom of the *Athenians*, every winter, to solemnize a public funeral of their Heroes who had fallen in battle.

“A day was appointed, and a tabernacle erected for the purpose; and for the space of three days before the celebration of the ceremony, all were at liberty to deck out the remains of their friends at their own discretion. The bones of the slain were brought to the tabernacle at the day appointed, in a grand procession. Ten cypress coffins were drawn on hurses or carriages, duly ornamented, one for every tribe; in each of which were separately contained the bones of all that belonged to that tribe. Distinguished above the rest, one sumptuous bier was carried along empty; as for all those that were missing, whose bodies could not be found amongst the slain. All who were willing, both citizens and strangers, attended the solemnity, and the women who were re-
related

lated to the deceased took their station near the sepulchre, groaning and lamenting, while the remains were deposited in the public burying-place, which stood in the finest suburb of the city; for it had been the custom to bury in that place all who fell fighting for their country, except those at *Marathon*, whose extraordinary valour the Athenians judged proper to honor with a sepulchre on the field of battle. As soon as this public interment was ended, some Orator, selected for the office by the public voice, and ever a person in great esteem for his high understanding and of chief dignity amongst them, pronounced over them the Euloge or Panegyric—and this done, they departed.”

This interesting account is given by *Thucydides*:* And circumstanced as the People of these *United States* now are, and as our posterity, for ages to come, must be, in building up and completing the glorious fabric of American Empire and Happiness, it might be a wise institution, if (in imitation of this *Athenian* Sepulture, or of the *Genoese* Feast of Union) we should make, at least, an annual pause; and consecrate a day to the review of past events, the commemoration of illustrious characters who have borne a share in the foundation and establishment of our renown, and particularly those of whom we may have been bereft during each preceding year.

In that view, how many Patriots, Statesmen, and Philosophers, would now pass before us?—*A Livingston, a Bowdoin, a Franklin!*

At

At the name of *Franklin*, every thing interesting to Virtue, Freedom and Humanity, rises to our recollection! By what Euloge shall we do justice to his pre-eminent abilities and worth? This would require a pre-eminence of abilities and worth, like his own. His vast and comprehensive mind was cast in a mould, which Nature seems rarely to have used before, and, therefore, can be measured only by a mind cast in a similar mould. His original and universal genius was capable of the *greatest* things, but disdained not the *smallest*, provided they were ~~useful~~ useful. With equal ease and abilities, he could conduct the affairs of a Printing-Press, and of a great Nation; and discharge the duties of a public Minister of State, or the private Executor of a Will. Those talents, which have separately entered into the composition of other eminent characters in the various departments of life, were in *Him* united to form one great and splendid character; and whoever, in future, shall be said to have deserved well of his country, need not think himself undervalued, when he shall be compared to a *Franklin*, in any of the great talents he possessed; but the happy man who shall be said to equal *him* in his whole talents, and who shall devote them to the like benevolent and beneficent purposes, for the service of his country and the happiness of mankind, can receive no further addition to his praise.

Franklin, as a Philosopher, might have become a *Newton*; as a Lawgiver, a *Lycurgus*: But he was greater than either of them, by uniting the talents of both, in the practical Philosophy of doing good; compared to which all the palms of speculative wisdom and science wither on the sight

sight. He did not seek to derive his eminence from the mere profession of letters, which, altho' laborious, seldom elevates a man to any high rank in the public confidence and esteem ; but he became great by applying his talents to things useful, and accommodating his instructions to the exigencies of times and the necessities of his country.

Had we no other proof of this, the great and dignified part which he sustained in the American Revolution, one of the most important events recorded among the annals of mankind, would alone have been sufficient to immortalize his name; but when we take into the account his previous labours for half a century, to illuminate the minds of his Fellow-Citizens, to prepare them for the mighty event, to nurse them into greatness by the arts of industry and virtue, to shew them the happiness which lay within their reach, to teach them to dare, and to bear, and to improve success. —this accumulation of services has woven for his head a diadem of such beauty, as scarcely ever adorned the brow of either ancient or modern Worthy.

In the earliest stages of life, he had conceived the mighty *Idea of American Empire and Glory* ; but, like *Hercules* in the Cradle, he was ignorant of his own *Strength*, and had not conceived the *Atchievements* and *Labors* which awaited him. He had not yet conceived that he was, one Day, to contend with Kings and Potentates for the rights of his country ; to extort from them an *Acknowledgment* of its *Sovereignty* ; and to sub-
scribe

scribe with his name the sacred Instruments* which were to give it a pre-eminent rank among the Nations of the Earth, and to assure its *Liberty* and *Independence* to the latest ages!

He was content in his humble, but honourable, station of an useful private citizen, to cherish in his own bosom, and in distant view, the *Idea* of *American Greatness*; and he cherished those also in whom he discovered *Ideas congenial* to his own! Here I can speak from grateful experience. An essay of mine, in early youth, anticipating that bright *Æra* which has now commenced, when Arts and Science, Religion and Liberty, all that can adorn or exalt human nature, are diffusing themselves over this immense Continent, which fell into his hands near forty years ago, first procured me that place in his esteem, that familiarity of conversation, and connexion with him, both in public and private life, which will enable me to proceed, with some advantage, to the remaining part of my duty, however unqualified in other respects.

That duty would lead me more immediately to contemplate him as a *Philosopher*, the *Founder* of that *Society*, by whose appointment I stand here, and the venerable conductor of our labors, thro' a long series of years, in "the promotion of useful knowledge." But as we are honored, on the present occasion, with the presence of the most
C illustrious

* The Declaration of American Independence, by the Congress of the United States, the Treaties of Amity and Commerce, and of Alliance with France; the Definitive Treaty of Peace with Great-Britain, acknowledging the Independence of America, &c.

illustrious Public Bodies, as well as the most respectable Private Citizens, who, having been alike benefited by his services, are alike interested in his memory, I shall consider him in *three* distinct relations :

1st. As a *Citizen of Pennsylvania*, eminent in her Councils, the Founder and Patron of most of those useful Institutions which do honor to her name.

2d. As a *Citizen of America*, one of the chief and greatest Workmen, in the foundation and establishment of her Empire and Renown.

3d. As a *Citizen of the World*, by the invention of useful Arts, and the diffusion of liberal Science, incessantly and successfully labouring for the happiness of the whole Human Race.

As the respect due to the Public Bodies, which compose such an illustrious part of this Assembly, forbids me to trespass too long upon their precious time, I must forbear entering upon a full detail of the life and actions of this Great Man, in those several relations; and shall, therefore, touch but briefly on those parts of his character, as are either generally known in *America*, or have been already detailed by his numerous Panegyrists, both at home and abroad.

Virtus vera Nobilitas, was an adage with which he was well pleased. He considered a descent from any of the virtuous Pesantry and venerable Yeomanry of *America*, who first subdued the sturdy oaks of our forests, and assisted to introduce

roduce Culture and Civilization into a once untutored Land, as having more true Nobility in it, than a pedigree which might be traced through the longest line of those commonly called Great and Noble in this world.

Descended from parents, who first settled in *America* above an hundred years ago ;* he was born at *Boston*, in January, 1706. The account of his education, which was such only as the common schools of that day afforded, the various incidents of his younger years, and the different occupations and professions for which his parents seemed to have intended him, before he was apprenticed to his brother, in the printing business, at the age of 12 years, although recorded by himself, and full of instruction, I shall leave wholly to his Biographers, till his arrival at *Philadelphia*, about the 18th year of his age ; to which city he came from the city of *New-York*, partly by water and partly by land on foot, his stock of clothes and cash at a very low ebb, to seek for employment as a Journeyman-Printer.† But by indus-

* His father, Josiah Franklin, settled in New-England in 1682. and his mother, Abiah Folger, was the daughter of Peter Folger, of Nantucket, one of the first settlers of that country.

† The account of his arrival at Philadelphia, as drawn up by the accurate and elegant compilers of his life in that valuable work, the *Universal Asylum and Columbian Magazine*, published by William Young, in Philadelphia, is as follows——“ After a passage of three days, he arrived from Boston to New-York, and immediately applied to William Bradford, the printer of that place, (who was the first printer in Pennsylvania) who could give him no employment, but advised him to go to Philadelphia, to his son Andrew Bradford. From New-York to Philadelphia *Franklin* travelled, partly by water, and fifty miles by land on foot, through rain and dirt, suspected and in danger of being taken into custody, as a runaway servant. On a Sunday morning, between 8 and 9 o'clock, he landed at Market-street-Wharf, in a very dirty condition, in the clothes in which he had

try and the application of his great natural talents to business, he soon was enabled to procure a Press, and to stand upon his own footing.

This account of his low beginnings, it is hoped, will not scandalize any of his respectable fraternity. No, Gentlemen;* but you will exult in it when you consider to what eminence he raised himself, and raised his Country, by the *right use of the Press*. When you consider that the *Press* was the great instrument which he employed to draw the attention of *Pennsylvania* to habits of virtue and industry; to the institution of Societies for the promotion of Agriculture, Commerce and the Mechanic Arts; to the founding of Schools, Libraries and Hospitals, for the diffusion of useful knowledge and the advancement of humanity. When you consider this, you will “go and do likewise;” you will, with professional joy and pride, observe, that from the Torch which *Franklin* kindled by the means of his Press, in the New World, “Sparks have been already stolen” (as the Abbe *Fauchet* beautifully expresses it) “which are lighting up the sacred flame of Liberty, [Virtue and Wisdom] over the entire face of the globe.” Be it your part still to feed that torch by means of the Press, till its divine flame reaches the skies!

For

had travelled from New-York, weary and hungry, having been without rest and food for some time, a perfect stranger to every body, and his whole stock of cash consisting of a Dutch dollar. Such was the entry of *Benjamin Franklin* into Philadelphia. From such beginnings did he rise to the highest eminence and respectability, not only in America, but amongst all civilized nations.

* This part was more immediately addressed to the Printers of Philadelphia, who attended as a body, at the delivery of this oration.

For the purpose of aiding his and increasing the materials of information, one of the first societies formed by Dr. *Franklin*, was in the year 1728, about the 22d of his age, and was called the JUNTO. It consisted of a select number of his younger friends, who met weekly for the "Discussion of Questions in Morality, Politics and Natural Philosophy." The Number was limited to twelve members, who were bound together in all the ties of friendship, and engaged to assist each other, not only in mutual communication of knowledge, but in all their worldly undertakings. This society, after having subsisted forty years, and having contributed to the formation of some very great men, besides Dr. *Franklin* himself, became at last the foundation of the *American Philosophical Society*, now assembled to pay the debt of gratitude to his memory. A book containing many of the questions discussed by the *Junto* was, on the formation of the *American Philosophical Society*, delivered into my hands, for the purpose of being digested, and in due time published among transactions of that body. Many of the questions are curious and curiously handled; such as the following:

Is *Sound* an entity or body?

How may the phenomena of vapors be explained?

Is Self-interest the rudder that steers mankind, the universal monarch to whom all are tributaries?

Which is the best form of government, and what was that form which first prevailed among mankind?

Can

Can any one particular form of government suit all mankind?

What is the reason that the tides rise higher in the Bay of Fundy than in the Bay of Delaware?

Is the emission of paper money safe?

What is the reason that men of the greatest knowledge are not the most happy?

How may the possession of the Lakes be improved to our advantage?

Why are tumultuous, uneasy sensations united with our desires?

Whether it ought to be the aim of Philosophy to eradicate the passions?

How may smoaky chimnies be best cured?

Why does the flame of a candle tend upwards in a spire?

Which is least criminal, a *bad* action joined with a *good* intention, or a *good* action with a *bad* intention?

Is it consistent with the principles of liberty in a free government, to punish a man as a libeller, when he speaks the truth?

These, and such similar questions of a very mixt nature, being proposed in one evening, were generally discussed the succeeding evening, and the substance of the arguments entered in their books.

But

But Dr. *Franklin* did not rest satisfied with the institution of this literary club for the improvement of himself and a few of his select friends. He proceeded year after year, in the projecting and establishing other institutions for the benefit of the community at large.

Thus in 1731, he set on foot the "Library Company of the City of Philadelphia," a most important institution to all ranks of people; giving them access, at a small expence, to books on every useful subject; amounting in the whole to near ten thousand volumes and the number daily increasing. The affairs of the company have been managed from the beginning by Directors of the most respectable characters. Their estate is now of very considerable value; they have erected an elegant house, and over the front door of the building, have prepared a niche for the statue of their venerable founder; who, after the establishment of this company, still proceeded to promote other establishments and associations, such as Fire-Companies; the Nightly-Watch for the City of Philadelphia; a Plan for cleaning, lighting and ornamenting the streets, and an Association for Insuring Houses against damages by fire; to which, as collateral, he soon afterwards added his plan for improving Chimnies and Fire-Places, which was first printed at Philadelphia in 1745, entitled "An Account of the new-invented Pennsylvania Fire-Places;" which gave rise to the Open-Stoves now in general use, to the comfort of thousands, who, assembled round them in the wintry night, bless the name of the Inventor which they yet bear!

The

The next institution, in the foundation of which he was the principal agent, was the Academy and Charitable School of the city of Philadelphia; the plan of which he drew up and published in the year 1749; as "suitable to the state of an Infant-Country:" But looking forward, as he did in all his plans, to a more improved state of society, he declared this Academy to be "intended as a foundation for posterity to erect a College or Seminary of Learning more extensive, and suitable to future circumstances;" and the same was accordingly erected into a College, or Seminary of Universal Learning, upon the most enlarged and liberal plan, about five years afterwards.

The Pennsylvania Hospital is the next monument of his philanthropy and public spirit; for the establishment and endowment of which, he was happily instrumental in obtaining a Legislative sanction and grant, by his great influence in the General Assembly, in the year 1752.

These various institutions, which do so much honor to Pennsylvania, he projected and saw completed, during the first twenty years of his residence in this State. Many more must have been his good offices and actions among his friends and fellow-citizens during that period, which were done in secret and of which no record remains: But they went before him to heaven, and are written in durable characters by the pen of the recording Angel.

A life so assiduously employed in devising and executing schemes for the public good, could not fail to aid him in his political career. He first became Clerk of the General Assembly, and then a member of the same for the city of Philadelphia, for the space of fourteen years successively.

In 1744, a Spanish privateer, having entered the Bay of Delaware, ascended as high as New-Castle, to the great terror of the citizens of Philadelphia. On occasion of this alarm, he wrote his first Political pamphlet called *Plain Truth*, to exhort his fellow-citizens to the bearing of arms; which laid the foundation of those military associations which followed, at different times, for the defence of the country.

His popularity was now great among all parties and denominations of men. But the unhappy divisions and disputes which commenced in the Provincial Politics of Pennsylvania, in the year 1754, obliged him soon afterwards to chuse his party. He managed his weapons like a veteran combatant; nor was he opposed with unequal strength or skill. The debates of that day have been read and admired as among the most masterly compositions of the kind, which our language affords; but it is happy for us, at the present day, that the subject of them is no longer interesting; and if it were, he who now addresses you was too much an actor in the scene to be fit for the discussion of it. Dr. *Franklin*, by the appointment of the General Assembly, quitted the immediate field of controversy, and in June 1757 embarked for England, to contest his point at the Court of Great-Britain, where he continued for several years with

various success in the business of his agency. In the summer of 1762, he returned to America; but the disputes which had so long agitated the Province, far from being quieted by his former mission, continued to rage with greater violence than ever, and he was again appointed by the Assembly to resume his agency at the Court of Great-Britain. Much opposition was made to his re-appointment; which seems greatly to have affected his feelings; as it came from men with whom he had long been connected both in public and private life, "the very ashes of whose former friendship," he declared, "that he revered." His pathetic Farewell to Pennsylvania on the 5th of November, 1764, ~~the day~~ before his departure, is a strong proof of the agitation of his mind on this occasion.

"I am now," says he, "to take leave (perhaps a last leave) of the country I love, and in which I have spent the greatest part of my life. *Esto perpetua!* I wish every kind of prosperity to my friends, and I forgive my enemies."

But under whatsoever circumstances this second embassy was undertaken, it appears to have been a measure pre-ordained in the councils of Heaven; and it will be forever remembered, to the honor of Pennsylvania, that the Agent selected to assert and defend the Rights of a single Province, at the Court of Great-Britain, became the bold Asserter of the Rights of America in general; "and, beholding the fetters that were forging for her, conceived the magnanimous tho't of rending them asunder before they could be rivetted."

rivetted."* And this brings us to consider him, in a more enlarged view, viz.

Secondly—As a *Citizen of America*, one of the chief and greatest workmen in the foundation and establishment of her empire and renown.

But on this head little need be said on the present occasion. The subject has been already exhausted by his Eulogists, even in distant countries. His opposition to the *Stamp-Act*, his noble defence of the Liberties of America, at the bar of Parliament, and his great services, both at home and abroad, during the Revolution, are too well known to need further mention in this assembly, or in the presence of so many of his competitors and fellow-labourers in the great work. I hasten, therefore, to consider him in another illustrious point of view, viz.

Thirdly—As a *Citizen of the World*—successfully labouring for the benefit of the whole human race, by the diffusion of liberal science and the invention of useful arts—.

Endowed with a penetrating and inquisitive genius, speculative and philosophical subjects engaged his early attention; but he loved them only as they were useful, and pursued them no farther than as he found his researches applicable to some substantial purpose in life. His stock of knowledge and the fruits of his investigations, he never hoarded up for his own private use. Whatever he discovered—whatever he considered as beneficial to mankind—fresh as it was conceived,
or

* Abbé Fauchet.

or brought forth in his own mind, he communicated to his fellow-citizens, by means of his News-Papers and Almanacs, in delicate and palatable morsels, for the advancement of industry, frugality and other republican virtues; and at a future day, as occasion might require, he would collect and digest the parts, and set out the whole into one rich feast of useful maxims and practical wisdom.

Of this kind is his celebrated Address, entitled "*The Way to Wealth*," which is a collection or digest of the various Sentences, Proverbs and wise Maxims, which during a course of many years, he had occasionally published, in his *Poor Richard's Almanac*, on topics of Industry, Frugality and the Duty of minding one's own Business. Had he never written any thing more than this admirable address, it would have ensured him immortality as—*The Farmer's Philosopher*, the *Rural Sage*, the *Yeoman's* and *Peasant's Oracle*.

But greater things lay before him, although as a Philosopher, as well as a politician, he remained unconscious of the plenitude of his own strength and talents, until called into further exertions by the magnitude of future objects and occasions.

There is something worthy of observation in the progress of Science and human Genius. As in the natural world there is a variety and succession of seeds and crops for different soils and seasons;

sons; so (if the comparison* may be allowed) in the philosophical world, there have been different æras for seed-time and harvest of the different branches of Arts and Sciences; and it is remarkable, that in countries far distant from each other, different men have fallen into the same tracks of Science, and have made similar and correspondent discoveries, at the same periods of time, without the least communication with each other. Whether it be that, at the proper season of vegetation for those different branches, there be a kind of *intellectual* or *mental farina* disseminated, which falling on congenial spirits in different parts of the globe, take root at the same time, and spring to a greater or less degree of perfection, according to the richness of the soil and the aptitude of the season?

From the beginning of the year 1746, till about twenty years afterwards, was the *Æra of Electricity*; as no other branch of Natural Philosophy was so much cultivated during that period. In *America*, and in the mind of *Franklin*, it found a rich bed: The seed took root and sprung into a great Tree, before he knew that similar seeds had vegetated, or risen to any height in other parts of the world.

Before that period, Philosophers amused themselves only with the smaller phenomena of *Electricity*; such as relate to the attraction of light bodies; the distances to which such attraction would extend; the luminous appearances produced by the excited *glass tube*; and the firing spirits and inflammable air by *Electricity*. Little more

* "Grant but as many kinds of *mind*, as *moss*."——POPE.

more was known on this subject, than *Thales* had discovered 2000 years before; that certain bodies, such as Amber and Glass had this attractive quality. Our most indefatigable searchers into nature, who in other branches seemed to have explored her profoundest depths, were content with what was known in former ages of Electricity, without advancing any thing new of their own. Sufficient Data and Experiments were wanting to reduce the doctrine and phenomena of Electricity into any Rules or System; and to apply them to any beneficial purposes in life. This great achievement, which had eluded the industry and abilities of a *Boyle* and a *Newton*, was reserved for a *Franklin*. With that diligence, ingenuity, and strength of judgment, for which he was distinguished in all his undertakings, he commenced his experiments and discoveries in the latter part of the year 1746; led thereto, as he tells us, by following the directions of his friend, *Peter Collinson* of London, in the use of an Electric-Tube, which that benevolent Philosopher had presented to the Library-Company of Philadelphia. The assiduity with which he prosecuted his investigations, appears from his first letter to Mr. *Collinson*, of March 28th, 1747.

“ For my own part, says he, I never was before engaged in any study that so totally engrossed my attention and my time, as this has lately done. For, what with making experiments, when I can be alone, and repeating them to my friends and acquaintance, who, from the novelty of the thing, come continually in crouds to see them, I have for some months past had leisure for little else.”

else." He had a delight in communicating his discoveries to his friends; and such was his manner of communication, with that winning modesty, that he appeared rather seeking to acquire information himself than to give it to others; which gave him a great advantage in his way of reasoning over those who followed a more dogmatic manner.

"Possibly," he would say, "these experiments may not be new to you, as, among the numbers daily employed in such observations on your side the water, it is probable some one or other has hit on them before." From the beginning to the end of his life, he observed the same modest and cautious method of communication. The first Philosophical Paper inserted in his collection, in 1756, is entitled "Physical and Meteorological Observations, Conjectures and Suppositions;" and his last at Passy in 1784, are of a similar title, viz.—"Meteorological Imaginations and Conjectures. Loose Thoughts on an Universal Fluid," and the like.

But I return to the account of his electrical labours, and the materials on which they were grounded. *Von Kliest*, about the latter end of the year 1745, had accidentally discovered some of the powers and properties of what is called the Leyden-Phial, and sent an account of the same to *Lieberkhun* at Berlin, which soon made this branch of science more interesting. As soon as the account of this discovery reached America, (together with Mr. *Collinson's* Tube) it excited no less curiosity here, than it had done in Europe; and Dr. *Franklin* writes to his friend *Collinson* in September,

tember, 1747, “ that no less than one hundred large Glass Tubes had been sold in Philadelphia, in the space of four months preceeding.” But although *Von Kliest* had discovered some properties of this Phial, and *Muschenbroek*, to his cost, had experienced others (by which the Phial or Bottle received his name) it remained for Dr. *Franklin* to discover its true principles, and how, by means of it, to accumulate, retain and discharge any quantity of the Electric Fluid, with safety. The account of this Discovery and of the experiments on which it was founded, he communicates to Mr. *Collinson*, in his letter of September 1, 1747, with his usual caution and modesty, in the following terms.—

“ The necessary trouble of copying long letters, which, perhaps, when they come to your hands may contain nothing new, or worth your reading (so quick is the progress made with you in Electricity) half discourages me from writing more on that subject. Yet I cannot forbear adding a few observations on *M. Muschenbroek's* wonderful Bottle.” In this letter, he discloses the whole magical powers of this Bottle; by proving that it would receive an accumulation of the Electric Fluid on the *inside*, only as it discharged an equal quantity from the *outside*. This discovery gave him the greatest advantages over all the Electricians of Europe. It put into his hands (as it were) the key which opened into all the secrets of Electricity, and enabled him to make his succeeding Experiments, with a sure Aim, while his brethren in Europe were groping in the dark, and some of them falling Martyrs to their experiments.

He was the first who fired gun-powder, gave magnetism to needles of steel, melted metals, and killed animals of considerable size, by means of Electricity. He was the first who informed Electricians and the world in general of the power of Metalline-Points, in conducting the Electric Fluid; acknowledging at the same time, with a candor worthy of true Philosophy, that he received the first information of this Power from Mr. *Thomas Hopkinson*,* who had used such Points, expecting by their means to procure a more powerful and concentrated discharge of the Leyden-Phial; but found the effect to be directly contrary. It was, undoubtedly, the discovery of this wonderful Power of Metalline-Points, in carrying off and silently dispersing the Electric-Fluid when accumulated, and the similarity and resemblance which he observed between the effects of Lightning and Electricity, which first suggested to him the sublime and astonishing Idea of draining the Clouds of their *Fire*, and disarming the *Thunder* of its Terrors; flattering himself at the same time with the pleasing hopes of gratifying a desire, long before become habitual to him, of rendering this discovery in some manner useful and beneficial to his Fellow-Creatures. This appears by his *Notes* of Nov. 7, 1749, when enumerating all the known particulars of resemblance between Lightning and Electricity, he concludes with saying—"The Electric Fluid is attracted by *Points*. We do not
E know

* "This Power of *Points*, to throw off the Electrical Fire, was first communicated to me by my ingenious friend, Mr. Thomas Hopkinson, since deceased; whose virtue and integrity, in every station of life, public and private, will ever make his memory dear to those who knew him, and knew how to value him."

know whether this Property be in Lightning ; but since they agree in all the particulars in which we can already compare them, it is possible that they agree likewise in this: *Let the Experiment be made.*" Difficulties, without doubt, occurred in making this Experiment, both as to the manner and least expensive way of reaching the Clouds with his *Points* ; for we do not find that he accomplished his grand Experiment till in June 1752. In a letter to his friend Collinson, not dated, but probably written in 1749, he communicates his " Observations and Suppositions towards forming a new Hypothesis, for explaining the several Phenomena of *Thunder-Gusts* ;" which was followed in July, 1750, by another Letter to the same, containing " Opinions and Conjectures concerning the Properties and Effects of the Electric Matter," and giving particular directions for determining whether Clouds containing *Lightning* are electrified or not ; for ascertaining of which, his idea at this time was, " the placing a pointed Iron-Rod on some high Tower or Steeple, and attempting to draw Sparks from it," there being at that time no lofty spires in Philadelphia. But his ever-inventive-genius, which could derive Lessons of Philosophy even from the Play of Children, soon furnished him with a more simple and less expensive Method: For in June 1752, he took the opportunity of an approaching Thunder-Storm, to walk into a Field, where there was a Shed convenient for his Purpose. Dreading the ridicule which too commonly attends unsuccessful attempts in Science, he communicated his intended Experiment to no Person but his Son, who assisted him in raising a *Kite*, which he
had

had prepared of a large Silk-Handkerchief, extended by two Cross-Sticks. After waiting for some time, and almost beginning to despair of success, he drew the first Spark with his Knuckle from a Key suspended to the String of the Kite. Another and another succeeded; and as the string became wet, he collected Fire copiously. What must have been his raptures on the success of this grand Experiment; leading him to anticipate that happy and beneficent application of the Principles of *Electricity*, to the *saving* of *Life* and *Property*, which alone would have recorded his Name among the Benefactors of Mankind; even if his Discoveries of those Principles could never have been extended or applied to any other useful purpose in the world. Similar must his raptures have been to those of a *Newton*, when by applying the Laws of *Gravitation* and *Projection* first to the *Moon*, he was enabled to extend them to the whole Solar-System, as is beautifully described by the Poet—

What were his raptures then ! how pure ! how strong !
 And what the Triumphs of old Greece and Rome
 With his compar'd—When nature and her Laws
 Stood all subdued by Him, and open laid
 Their every latent Glory to his view.

All-intellectual Eye ; our Solar round
 First gazing thro', he by the blended Power
 Of *Gravitation* and *Projection* saw
 The whole in silent Harmony revolve.
 First to the neighb'ring Moon this mighty Key
 He first applied. Behold ! it turn'd
 The secret wards ; it open'd wide the course
 And various Aspects of the Queen of Night ;
 Whether she wanes into a scanty Orb
 Or, waxing broad, with her pale shadowy Light,
 In a soft Deluge overflows the Sky.

Dr. Franklin's Letters, giving an account of his
 Electrical Experiments and Discoveries, and, among
 the rest, of this grand experiment of drawing
 Electricity

Electricity from the Clouds, were soon published in Europe, and translated into different Languages. " Nothing was ever written on the subject of Electricity," says Dr. Priestly, " which was more generally read and admired in all parts of Europe, than those Letters. Electricians every where employed themselves in repeating his Experiments, or exhibiting them for money. All the world, in a manner, and even Kings themselves, flocked to see them, and all returned full of admiration for the Inventor of them."

Amidst this general admiration, Dr. Franklin himself continued to communicate his Knowledge and Discoveries under the humble appellation of Conjectures or Guesses : But no man ever made bolder or happier *Guesses*, either in *Philosophy* or *Politics* : He was likewise a bold Experimenter in both. He had by accident received a discharge of two of his large electrical Jars through his head, which struck him to the ground, but did him no lasting injury. He had likewise seen a young woman receive a still greater shock or discharge of Electricity through her head, which she had inadvertently brought too near the Conductor, which knocked her down ; but she instantly got up, and complained of nothing further. This encouraged him to make the Experiment on six men at the same time, the first placing his Hand on the Head of the second, and so on. He then discharged his two Jars, by laying his Conducting Rod on the Head of the first Man. They all dropt together ; thinking they had been struck down, as it were, by
some

some kind of Magic, or secret operation of Nature; declaring when they rose that they had neither seen the flash, nor heard the report of any Discharge.

For his manner of delivering his *Philosophical* Opinions, under the humble appellation of *Conjectures* and *Suppositions*, he makes the following Apology, more humble still. “ I own (says he, in one of his Letters) that I have too strong a penchant to building *Hypotheses*: They indulge my natural Indolence.” But *Indolence* was no part of his character; and his success in this method of *philosophizing* will rescue it from much of the reproach which has been too liberally cast upon it. Without forming *Hypotheses*, experimental Philosophy, would only be a jumble of Facts, ranged under no heads, nor disposed into any system. Dr. *Franklin*, without troubling himself with *Mathematical* Speculations, or shewing any inclination towards them, nevertheless reasoned with all the accuracy and precision of the deepest Mathematician. And although he might be sometimes mistaken where the truth could be developed only by the help of *pure Mathematics*, yet he was rarely mistaken in his *Mechanical* and *Philosophical* Deductions.

Being on Ship-board in the year 1757, an accident gave him occasion to observe the wonderful effect of Oil, in stilling the waves of the Sea. He immediately determined to make Experiments to elucidate this new property of Oil, which he did with success; and the philosophical World is indebted to him for being now fully acquainted with a Fact, which, although not unknown to *Plutarch* and *Pliny*, could for ages past have been known only
among

among the Dutch Fishermen, and a few Seamen of other Nations. ' .

His Enquiries and Discoveries were confined to no limits or subjects. Through all the Elements: In the *Fire* and in the *Water*, in the *Air* and in the *Earth*, he sought for and he found new and beneficial *Knowledge*.

He discovered that unaccountable Agitation of the two Surfaces in *Contact*, when a quantity of *Oil* floats on *Water* in a Vessel.

He found the *Pulse-Glass* in Germany, and introduced it into England, with Improvements of his own.

He discovered that equal and congenial Bodies acquired different Degrees of Heat from the Sun's Rays, according to their different Colours.

His Improvements in Chimnies, Stoves, etc. have been already noticed.

He made Experiments to shew, that *Boats* are drawn with more difficulty in small *Canals*, than in greater Bodies of *Water*.

He made and published Experiments for improving the *Art* of *Swimming*, and for allaying Thirst by bathing in *Sea-Water*.

He published Observations on the gradual Progress of North-East Storms along the American Coasts, contrary to the direction of the Wind, and likewise to ascertain the Course, Velocity, and Temperature of the *Gulf-Stream*, for the benefit of Navigation.

He

He contrived Experiments, and recommended them to the late Dr. Ingenhauz, for determining the relative Powers of different Metals for conducting Heat, which were accordingly made.

He revived and improved the *Harmonica*, or *Glassichord*, and extended his Speculations to the finer Arts ; shewing that he could taste and criticise even the Compositions of a *Handel* !

He left behind him some very curious Thoughts and Conjectures concerning “ An *Universal Fluid* ; the Original Formation of the Earth, and how far, from attentive Observations made during the *Summer*, it may be possible to foretell the Mildness or Severity of the following Winter.” These were the Fruits of some of his leisure hours at *Passy*, during his Ministry at the Court of France, where his time in general was devoted, with the greatest dignity, and the most splendid success, to the political objects of his mission.

That success was much promoted by the high Reputation which he sustained as a *Patriot* and *Philosopher* among the Patriots and Philosophers of a generous and enlightened Nation. Of this the fullest Testimony is to be found in the Letters of Condoleance on his Death, from the National Assembly of that Country, to the *President* and *Congress* of the *United States* ; and the public Mourning decreed on that occasion—an Honor, perhaps the first of the kind which has ever been paid by a public body of one Nation to a Citizen of another. But all nations considered themselves as being interested in him,
and

and the Homage was therefore more justly due to his *Manes* and his Name ! And here I cannot suppress another Testimony of the Veneration and Esteem in which his Character was held by all Ranks of People in France ; as I have received it from his illustrious *Successor** in the *Ministry* to that Nation.

“ I feel, says he, both the wish and the duty to communicate, in compliance with your request, whatever, within my knowledge, might render Justice to the memory of our great Countryman *Dr. Franklin* ; in whom *Philosophy* has to deplore one of its principal Luminaries extinguished. But my opportunities of knowing the interesting Facts of his Life have not been equal to my desire of making them known.

“ I can only, therefore, testify in general, that there appeared to me more Respect and Veneration attached to the Character of *Dr. Franklin* in *France*, than to that of any other Person in the same Country, foreign or native. I had opportunities of knowing particularly how far these Sentiments were felt, by the foreign *Ambassadors* and *Ministers* at the Court of Versailles. The Fable of his Capture by the Algerines, propagated by the English News-Papers, excited no Uneasiness, as it was seen at once to be a Dish cook'd up to please certain Readers ; but nothing could exceed the anxiety of his *Diplomatic Brethren* on a subsequent Report of his Death, which, although premature, bore some marks of authenticity.

“ I found

* Mr. Jefferson.

“ I found the Ministers of France equally impressed with his Talents and Integrity. The Count de Vergennes, particularly, gave me repeated and unequivocal demonstrations of his entire confidence in him.

“ When he left *Passy*, it seemed as if the Village had lost its *Patriarch*. On taking leave of the Court, which he did by Letter, the King ordered him to be handsomely complimented, and furnished him with a *Litter* and *Mules* of his own, the only kind of conveyance the state of his Health could bear.

“ The Succession to Dr. *Franklin*, at the Court of France, was an excellent School of Humility to me. On being presented to any one, as the *Minister of America*, the common-place Question was “ *c’est vous, Monsieur, qui remplacez le Docteur Franklin ?* ”—it is you, Sir, who replace Doctor Franklin ! I generally answered —“ No one can *replace* Him, Sir ; I am only his *Successor*. ”

“ I could here relate a number of those *bons mots*, with which he was used to charm every Society, as having heard many of them ; but these are not your object. Particulars of greater dignity happened not to occur, during his stay of nine months after my arrival in France.

“ A little before that time, *Argand* had invented his celebrated *Lamp*, in which the Flame is spread into a hollow Cylinder, and thus brought into contact with the Air, within as well

F

as

as without. Dr. Franklin had been on the point of the same discovery. The idea had occurred to him ; but he had tried a Bull-rush as a Wick, which did not succeed. His Occupations did not permit him to repeat and extend his Trials to the Introduction of a larger Column of Air, than could pass through the stem of a Bull-rush.

“ About that time, also, the King of France gave him a signal testimony of respect, by joining him with some of the most illustrious men of the nation, to examine that *Ignis fatuus* of philosophy, the *Animal Magnetism* of the *Maniac*, MESMER ; the pretended effects of which had astonished all Paris. From Dr. Franklin’s hand, in conjunction with his Brethren of the learned Committee, that compound of Fraud and Folly was unveiled, and received its death-wound. After this nothing very interesting was before the Public, either in Philosophy or Politics, during his stay ; and he was principally occupied in winding up his Affairs, and preparing for his return to America.

“ These small offerings to the memory of our great and dear Friend, (whom Time will be making still greater, while it is spunging us from its Records) must be accepted by you, Sir, in that Spirit of Love and Veneration for him, in which they are made ; and not according to their insignificance in the eyes of a world, which did not want this mite to fill up the measure of his worth.

“ His death was an affliction which was to happen to us at some time or other. We have reason
to

to be thankful he was so long spared; that the most useful life should be the longest also; that it was protracted so far beyond the ordinary span allotted to humanity, as to avail us of his wisdom and virtue in the establishment of our *Freedom* in the *West*; and to bless him with a view of its *Dawn* in the *East*, where Men seem'd till now to have learned every thing—but *how to be free*."

Dr. *Franklin*, having taken leave of the Court of France, left *Passy* on the 12th of July, and arrived at Philadelphia, the 13th of September, 1785, where he was welcomed with joy by his fellow-citizens of all classes; and, in testimony of their heart-felt sense of his eminent virtues and past services, he was unanimously elected by them to the government of the Commonwealth, for the three succeeding years; being the longest term which the Constitution of Pennsylvania then allowed. During that Term, he was also appointed a Member of the General Convention, for forming and establishing a Constitution for the United States of America; and, on the 18th Sept. 1787, that illustrious Body having concluded their labors, Dr. *Franklin*, in conjunction with his Colleagues of Pennsylvania, presented the Result of the same, to the Speaker and House of Representatives, with the following short address—

" SIR,

" I have the very great satisfaction of delivering to you, and to this honorable House, the *Result* of our Deliberations in the late *Convention*. We hope and believe that the Measures recommended

recommended by that Body, will produce happy effects to this Commonwealth, as well as to every other of the United States." He then presented, at the Speaker's Chair, the *Constitution*, agreed to in Convention, for the Government of the United States. The remainder of his Term of Office in the Government, he devoted to the wise and prudent administration of its Duties ; so far as the growing infirmities of his years, and the painful disorder with which he had been long afflicted, would permit. During the most excruciating paroxysms of that disorder, he strove to conceal his pain, that he might not give pain to those around him ; and he would often say, that he felt the greatest alleviation of his own pains, in the occasions which were offered him of doing good to others ; and which he never neglected to the latest moments of his life.

One of the last public Acts in which he was concerned, was to sanction with his Name the *Memorial* presented to the General Government of the United States, on the subject of the *Slave-Trade*, by the " Pennsylvania Society for promoting the Abolition of Slavery, and the Relief of free Negroes, unlawfully held in Bondage." Of this Society, he was President ; and the Institution and Design of it could not but be congenial to the Soul of a Man, whose life and labors had been devoted to the Cause of *Liberty*, for more than half a *Century* ; ardently striving to extend its Blessings to every part of the human Species, and particularly to such of his Fellow-Creatures, as, being entitled to *Freedom*, are, nevertheless

nevertheless, injuriously enslaved, or detained in bondage, by fraud or violence.

It was not his desire, however, to propagate Liberty by the violation of public Justice or private Rights ; nor to countenance the operation of Principles or Tenets among any Class or Association of Citizens, inconsistent with, or repugnant to, the *Civil Compact*, which should unite and bind the Whole ; but he looked forward to that *Æra* of civilized *Humanity*, when, in consistence with the *Constitution of the United States*, it may be hoped, there shall not be a *Slave* within their jurisdiction or territory ! Nay, he looked more forward still, to the time when there shall not be a *Slave* nor a *Savage*, within the whole Regions of America. He believed that this sublime *Æra* had already dawned, and was approaching fast to its meridian glory ; for he believed in *divine Revelation*, and the beautiful *analogy* of History, sacred as well as profane ! He believed that human knowlege, however improved and exalted, stood in need of illumination from on high ; and that the divine Creator has not left mankind without such illumination, and evidence of himself, both internal and external, as may be necessary to their present and future happiness.

If I could not speak this from full and experimental knowlege of his Character, I should have considered all the other parts of it, however splendid and beneficial to the world, as furnishing but scanty materials for the present Eulogium.

“ An undevout *Philosopher* is mad ! ”

The

The man who can think so meanly of his own soul, as to believe that it was created to animate a Piece of Clay, for a few years, and then to be extinguished and exist no more, can never be a *Great Man*! But *Franklin* felt and believed himself *immortal*! His vast and capacious Soul was ever stretching beyond this narrow sphere of Things, and grasping an *Eternity*! Hear himself, “ altho dead, yet speaking” on this awfully delightful subject! Behold here, in his own handwriting, the indubitable Testimony! In this Temple of God, and before this august Assembly, I read the Contents, and consecrate the precious Relick to his Memory! It is his Letter of Condolence to his Niece, on the Death of his *Brother*; and may be applied as a fit Conclusion of our present Condoleances on his *own* death—

“ We have lost a most dear and valuable Relation (and Friend)—But, ’tis the Will of God that these mortal Bodies be laid aside when the *Soul* is to enter into *real Life*. Existing here is scarce to be called Life : it is rather an embryo-state, a Preparative to Living ; and Man is not completely Born till he is Dead. Why, then, should we grieve that a new Child is born among the Immortals, a new Member added to their happy Society ?

“ We are *Spirits*!—That Bodies should be lent while they can afford us pleasure, assist us in acquiring Knowledge, or doing good to our Fellow-Creatures, is a kind and benevolent act of God. When they become unfit for these Purposes, and afford us pain instead of pleasure, instead of an aid

aid become an incumbrance, and answer none of the Intentions for which they were given, it is equally kind and benevolent that a way is provided, by which we may get rid of them. *Death* is that way : we ourselves prudently chuse a *partial death*, in some Cases. A mangled, painful Limb, which cannot be restored, we willingly cut off. He who plucks out a Tooth, parts with it freely, since the pain goes with it ; and he that quits the *whole Body*, parts at once with all the pains, and possibilities of pains and pleasures, it was liable to, or capable of making him suffer.

“ Our *Friend* and *We* are invited abroad on a party of pleasure, *that is to last forever*. His *Chair* was first ready, and he is gone before us. We could not all conveniently start together ; and why should you and I be grieved at this, since we are soon to follow, and *we know where to find him.*”

Yes, thou dear departed Friend and Fellow-Citizen ! Thou, too, art gone before us—thy *Chair*, thy celestial *Car*, was first ready ! We must soon follow, and we know where to find Thee ! May we seek to follow thee by lives of Virtue and Benevolence like thine—then shall we surely find thee—and part with thee no more, forever ! Let all thy Fellow-Citizens ; let all thy Compatriots ; let every Class of Men with whom thou were associated here on Earth—in devising plans of government, in framing and executing good laws, in disseminating useful knowledge, in alleviating human misery, and in promoting the happiness of
Mankind

Mankind—let them consider Thee as their *Guardian-Genius*, still present and presiding amongst them; and what they conceive thou would'st advise to be DONE, let them advise and DO likewise—and they shall not greatly deviate from the Path of *Virtue* and *Glory* !

T H E E N D.

A P P E N D I X.

Some PAPERS referred to in the foregoing EULOGIUM.

No. I. Endorsed in Dr. FRANKLIN's Hand, as follows, viz.

Letter to Abbé SOULAVIE, occasioned by his sending me some Notes he had taken of what I had said to him in conversation on the theory of the Earth. I wrote it to set him right in some points wherein he had mistaken my mean-

PASSY, September 22, 1782.

SIR,

I RETURN the Papers with some corrections. I did not find Coal Mines under the calcareous rock in Derbyshire. I only remarked, that at the lowest part of that rocky mountain, which was in sight, there were Oyster Shells mixed with the Stone ; and part of the high county of Derby being probably as much above the level of the sea, as the Coal Mines of Whitehaven were below, it seemed a proof that there had been a great Bouleversement in the surface of that Island, some part of it having been depressed under the sea, and other parts, which had been under it, being raised above it. Such changes in the superficial parts of the globe, seemed to me unlikely to happen, if the Earth were solid to the centre. I therefore imagined that the internal parts might be a fluid more dense, and of greater specific gravity than any of the solids we are acquainted with ; which therefore might swim in or upon that fluid. Thus the surface of the globe would be a shell, capable of being broken and disordered by the violent movements of the fluid on which it rested. And, as air has been compressed by art so as to be twice as dense as water, in which case, if such air and water could be contained in a strong glass vessel, the air would be seen to take the lowest place, and the water to float above and upon it ; and, as we know not yet the degree of density to which air may be compressed, and M. AMONTONS calculated, that its density encreasing as it approached the centre in the same proportion as above the surface, it would, at the depth of leagues, be heavier than gold, possibly the dense fluid occupying the internal parts of the globe might be air compressed. And as the force of expansion in dense air when heated, is in proportion to its density ; this central air might afford another agent to move the surface, as well as be of use in keeping alive the central fires : Tho, as you observe, the sudden rarefaction of water coming into contact with those fires, may be an agent sufficiently strong for that purpose, when acting between the incumbent earth and the fluid on which it rests.

If one might indulge imagination in supposing how such a globe was formed, I should conceive, that all the elements in separate particles, being originally mixed in confusion, and occupying a great space, they would (as soon as the Almighty Fiat ordained gravity, or the mutual attraction of certain parts, and the mutual repulsion of other parts, to exist) all move towards their common centre : That the air being a fluid whose parts repel each other, tho drawn to the common centre by their gravity, would be densest towards the centre, and rarer as more remote ; consequently all Bodies, lighter than the central parts of that air, and immersed in it, would recede from the centre, and rise till they arrived at that region of the air, which was of the same specific gravity with themselves, where they would rest ; while other matter, mixed with the lighter air, would descend, and the two meeting would form the shell of the first earth, leaving the upper atmosphere nearly clear. The original movement of the parts towards their common centre would form a whirl there ; which would continue in the turning of the new formed globe upon its axis, and the greatest diameter of the shell would be in its equator. If by any accident afterwards the axis should be changed, the dense internal fluid, by altering its form, must burst the shell and throw all its substance into the confusion in which we find it. I will not trouble you at present with my fancies concerning the manner of forming the rest of our

system. Superior beings smile at our theories, and at our presumption in making them. I will just mention that your observation of the ferruginous nature of the lava which is thrown out from the depths of our volcanoes, gave me great pleasure. It has long been a supposition of mine, that the iron contained in the substance of the globe has made it capable of becoming, as it is, a great magnet; that the fluid of magnetism exists perhaps in all space; so that there is a magnetical North and South of the Universe, as well as of this globe, and that if it were possible for a man to fly from star to star, he might govern his course by the compass; that it was by the power of this general magnetism this globe became a particular magnet. In soft or hot iron the fluid of magnetism is naturally diffused equally: When within the influence of a magnet, it is drawn to one end of the iron, made denser there and rarer at the other. While the iron continues soft and hot it is only a temporary magnet: If it cools or grows hard in that situation, it becomes a permanent one, the magnetic fluid not easily returning its equilibrium. Perhaps it may be owing to the permanent magnetism of this globe, which it had not at first, that its axis is at present kept parallel to itself, and not liable to the changes it formerly suffered, which occasioned the rupture of its shell, the submersions and emersions of its lands, and the confusion of its seasons. The present polar and equatorial diameters differing from each other near ten leagues, it is easy to conceive in case some power should shift the axis gradually, and place it in the present equator, and make the new equator pass through the present poles, what a sinking of the waters would happen in the present equatorial regions, and what a rising in the present polar regions; so that vast tracts would be discovered that now are under water, and others covered that now are dry, the water rising and sinking in the different extremes near five leagues. Such an operation as this possibly occasioned much of Europe, and among the rest this mountain of Passy on which I live, and which is composed of limestone, rock and sea-shells, to be abandoned by the sea, and to change its ancient climate, which seems to have been a hot one. The globe being now become a permanent Magnet, we are perhaps safe from any future change of its axis. But we are still subject to the accidents on the surface, which are occasioned by a wave in the internal ponderous fluid; and such a wave is produced by the sudden violent explosion you mention, happening from the junction of water and fire under the earth, which not only lifts the incumbent earth that is over the explosion, but impressing with the same force the fluid under it, creates a wave that may run a thousand leagues, lifting and thereby shaking successively all the countries under which it passes. I know not whether I have expressed myself so clearly, as not to get out of your sight in these reveries. If they occasion any new enquiries, and produce a better Hypothesis, they will not be quite useless. You see I have given a loose to the imagination, but I approve much more your method of philosophizing, which proceeds upon actual observation, makes a collection of facts, and concludes no farther than those facts will warrant. In my present circumstances, that mode of studying the nature of the globe is out of my power, and therefore I have permitted myself to wander a little in the wilds of fancy. With great esteem, I have the honor to be, Sir, &c.

BENJAMIN FRANKLIN.

P. S. I have heard that Chemists can by their art decompose Stone and Wood, extracting a considerable quantity of water from the one, and air from the other. It seems natural to conclude from this, that water and air were ingredients in their original composition: For men cannot make new matter of any kind. In the same manner may we not suppose, that when we consume combustibles of all kinds, and produce heat or light, we do not create that heat or light; we only decompose a substance which received it originally as a part of its composition? Heat may thus be considered as originally in a fluid state; but, attracted by organized bodies in their growth, becomes a part of the solid. Besides this, I can conceive that in the first assemblage of the particles of which this earth is composed, each brought its portion of the loose heat that had been connected with it, and the whole, when pressed together, produced the internal fire which still subsists.

LOOSE THOUGHTS ON AN UNIVERSAL FLUID, &c.

PASSY, JUNE 25, 1784.

UNIVERSAL SPACE, as far as we know of it, seems to be filled with a subtil Fluid, whose motion, or vibration, is called **Light**.

This fluid may possibly be the same with that which being attracted by, and entering into other more solid matter, dilates the substance, by separating the constituent Particles, and so rendering some Solids fluid, and maintaining the fluidity of others : of which fluid when our bodies are totally deprived, they are said to be frozen ; when they have a proper quantity, they are in health, and fit to perform all their functions ; it is then called natural heat : when too much, it is called fever ; and when forced into the body in too great a quantity from without, it gives pain by separating and destroying the flesh, and is then called burning ; and the fluid so entering and acting is called fire.

While organized bodies, animal or vegetable, are augmenting in growth, or are supplying their continual waste, is not this done by attracting and consolidating this fluid called fire, so as to form of it a part of their substance ; and is it not a separation of the parts of such substance, which, dissolving its solid state, sets that subtle fluid at liberty, when it again makes its appearance as fire ?

For the power of man relative to matter seems limited to the dividing it, or mixing the various kinds of it, or changing its form and appearance by different compositions of it ; but does not extend to the making or creating of new matter, or annihilating the old : Thus if fire be an original element, or kind of matter, its quantity is fixed and permanent in the world. We cannot destroy any part of it, or make addition to it ; we can only separate it from that which confines it, and so set it at liberty, as when we put wood in a situation to be burnt ; or transfer it from one solid to another, as when we make lime by burning stone, a part of the fire dislodged from the wood being left in the stone. May not this fluid when at liberty be capable of penetrating and entering into all bodies organized or not, quitting easily in totality those not organized ; and quitting easily in part those which are ; the part assumed and fixed remaining till the body is dissolved ?

Is it not this fluid which keeps asunder the particles of air, permitting them to approach, or separating them more, in proportion as its quantity is diminished or augmented ? Is it not the greater gravity of the particles of air, which forces the particles of this fluid to mount with the matters to which it is attached, as smoke or vapour ?

Does it not seem to have a great affinity with water, since it will quit a solid to unite with that fluid, and go off with it in vapour, leaving the solid cold to the touch, and the degree measurable by the thermometer ?

The vapour rises attached to this fluid, but at a certain height they separate, and the vapour descends in rain, retaining but little of it, in snow or hail less. What becomes of that fluid ? Does it rise above our atmosphere, and mix equally with the universal mass of the same kind ? Or does a spherical stratum of it, denser, or less mixed with air, attracted by this globe, and repelled or pushed up only to a certain height from its surface, by the greater weight of air, remain there surrounding the globe, and proceeding with it round the sun.

In such case, as there may be a continuity or communication of this fluid through the air quite down to the earth, is it not by the vibrations given to it by the sun that light appears to us ; and may it not be, that every one of the infinitely small vibrations, striking common matter with a certain force, enter its substance, are held there by attraction, and augmented by succeeding vibrations, till the matter has received as much as their force can drive into it ?

Is it not thus that the surface of this globe is continually heated by such repeated vibrations in the day, and cooled by the escape of the heat when those vibrations are discontinued in the night, or intercepted and reflected by clouds ?

Is it not thus that fire is amass'd, and makes the greatest part of the substance of combustible bodies ?

Perhaps when this globe was first formed, and its original particles took their place at certain distances from the centre, in proportion to their greater or less gravity, the fluid fire, attracted towards that centre, might in great part be obliged, as lightest, to take place above the rest, and thus form the sphere of fire above supposed, which would afterwards be continually diminishing by the substance it afforded to organized bodies, and the quantity restored to it again by the burning or other separating of the parts of those bodies ?

Is not the natural heat of animals thus produced, by separating in digestion the parts of food, and setting their fire at liberty ?

Is it not this sphere of fire which kindles the wandering globes that sometimes pass through it in our course round the sun, have their surface kindled by it, and burst when their included air is greatly rarified by the heat on their burning surfaces ?

IN Page 31 of the foregoing work, a Paper is mentioned in which Dr. FRANKLIN, among his other *Conjectures* and *Imaginations* (as he modestly styles them) supposes it possible, from attentive observations made during the summer, to foretell the mildness or severity of the following winter"—

" When in summer (says he) the sun is high, and long every day above the horizon, his rays strike the earth more directly, and with longer continuance than in the winter : hence the surface is more heated and to a greater depth, by the effect of these rays. When rain falls on the heated earth and sinks down into it, it carries down with it a great part of the heat which by that means descends still deeper.— The mass of earth, to the depth of perhaps 3 feet, being thus heated to a certain degree, continues to retain its heat for some time. Thus the first snows that fall in the beginning of winter, seldom lie long on the surface. Afterwards, the winds that blow over the country, on which the snows had fallen, are not rendered so cold as they would have been, had these snows remained ; and thus the approach of the severity of the winter is retarded.

" During several of the summer months of 1783, when the efforts of the sun's rays to heat these northern regions would have been great, there existed a constant fog over all Europe, and great part of North America. This fog was of a peculiar nature : it was dry, and the rays of the sun seemed to have little effect towards dissipating it, as they dissolve a moist fog arising from water. They were indeed rendered so faint in passing through it, that when collected in the focus of a burning glass, they would scarce kindle brown paper. Of course their summer effect in heating the earth was exceedingly diminished : Hence the surface was early frozen : Hence the first snows remained on it, and received continual additions : Hence the air was more chilled, and the winter more severely cold : And hence the winter of 1783—4 was more severe than any that had happened for many years."

IN the *philosophical* and political career of this great Man, numerous are the instances which might be given to confirm the truth of an observation already made, that one *ruling passion* form'd the motive of every action—"a desire to do good and to communicate." His address, in this, was great, adapting himself to subjects and persons, with the most winning affection and familiarity, as occasion required—from the earliest to the latest period of his life.

In a Letter, which he wrote to his sister in 1738, he conveys the first great lesson of Religion, by a pleasant criticism on some verses written by his Uncle, one line of which was—

"*Raise Faith and Hope three stories higher.*"

"The meaning of three stories higher, (he said,) seems somewhat obscure. You are to understand then that *Faith*, *Hope* and *Charity*, have been called the three steps of Jacob's ladder, reaching from Earth to Heaven: Our author calls them stories of the Christian Edifice. Thus improvement in religion is called building up, or edification. *Faith* is then the ground floor, and *Hope* is up one pair of stairs. My dearly beloved Jenny, do not delight so much to dwell in these lower Rooms, but get as fast as you can into the Garret, for in truth the best Room in the house is *Charity*."

In a Letter, written when in France to Dr. MATHER of Boston, he attributes his disposition of doing good, to the early impression of a Book which attracted his notice when he was a boy, called *Essays to do good*, written by Dr. Mather's father:—"It had been, says he, so little regarded by a former possessor, that several leaves of it were torn out; but the remainder gave me such a turn of thinking, as to have great influence on my conduct through life; for I have always set a greater value on the character of a doer of good, than on any other kind of reputation; and if I have been, as you seem to think, a useful citizen, the public owes the advantage of it to that book."

He proceeds.—"The last time I saw your father was in the beginning of 1724. He received me in his library, and on my taking leave, shewed me a shorter way out of the house, through a narrow passage, which was crossed by a beam over head. We were still talking as I withdrew, he accompanying me behind, and I turning partly towards him, when he said hastily, *Stoop! Stoop!* I did not understand him, till I felt my head hit against the beam. He was a man that never missed an occasion of giving instruction, and upon this he said to me—*You are young, and have the world before you: stoop as you go through it, and you will miss many hard thumps.* This advice, thus beaten into my head, has often been of use to me through life, and I often think of it when I see pride mortified, and misfortunes brought upon people by carrying their heads too high."

The former* of the following Notes was intended for the bottom of page 30; and the latter** for the bottom of page 31.

* Dr. FRANKLIN was the first who gave particular attention to the GULF-STREAM, its course, velocity, and temperature, for the benefit of navigation on the coasts of North America. This has been ascribed to Dr. BLAGDEN; but he did not publish his observations until 1781. Dr. Franklin published his Chart in 1768.

** The Duke de la Rochefoucault made him acquainted with the celebrated TURCOT who wrote the memorable motto under his Portrait—

Eripuit Cælo fulmen, mox sceptrâ Tyrannis.

POSTSCRIPT.

A considerable number of Papers, relating to Dr. Franklin's political Character and Life, so far as concerns the affairs of Pennsylvania, from the year 1754 to 1774, together with a Catalogue and critical Account of his Writings, were nearly prepared, and intended as a conclusion to this *Appendix* ; but considering that the publication of them might interfere, in some degree, with the work which is expected from his Grandson, TEMPLE FRANKLIN, Esq. (to whom he bequeathed the property of his writings) they are suppressed for the present ; and probably may never be considered as of any essential consequence to the public, or to the name of Dr. Franklin, after the work of his Grandson shall appear.