ADVANCE SHEET – May 13, 2022

President's Letter

In this issue we present a product of the fourth generation of the Adams family. The first three generations included the two Adams Presidents and Charles Francis Adams, the very successful American Minister at the Court of St. James during the Civil War. The fourth, and last influential generation consisted of three brothers, Henry, Brooks and Charles Francis Jr. all of whom partook of the disillusionment with American political life after the Civil War. Charles Francis was a railroad President and a contributor to Chapters of Erie, a denunciation of postwar corruption. Henry was the composer of fair-minded histories of the Jefferson and Madison administrations as well as of what may be the most famous American autobiography. Brooks Adams wrote several somber historical works. Although there were later Adamses, including Coolidge's Secretary of the Navy and a president of Raytheon Corporation, none left a great mark after the fourth generation.

The document we present here is Brooks Adams' essay on The Legacy of Henry Adams, part of a collection of Henry's writings published as *The Degradation of the Democratic Dogma*. The essay is more about John Quincy Adams than about Henry; it portrays him as the last of the Federalists and the first of the Whigs, who tried to industrialize the Upper South and thus forestall the slavery controversy. It says little about his abolitionism, portraying him as a martyr to the cause of science as well as a skeptic about the early manifestations of feminism. Its appearance here is justified by the unfamiliarity of Brooks Adams' views. (Due to considerations of length, we will present the first two chapters of the essay in this issue and the last two chapters in the next issue of the *Advance Sheet* – J.B.)

George W. Liebmann

"Managing Bureaucracy and the End of an Era"

On **Wednesday, May 25, 2022**, at **12:30 p.m.**, Donald Devine will speak on the federal bureaucracy. The lecture will be both in-person and by way of **Zoom**.

Donald Devine is a senior scholar at The Fund for American Studies in Washington, D.C. He served as President Ronald Reagan's civil service director during the president's first term in office. During that time, the *Washington Post* labeled him "Reagan's Terrible Swift Sword of the Civil Service" for cutting bureaucratic excesses and reducing billions in spending.

Before and after his government service, Devine was an academic, teaching 14 years as associate professor of government and politics at the University of Maryland and for a decade as a professor of Western civilization at Bellevue University. In the definitive work on Frank Meyer's essays, Devine was listed as one of the dozen "leading lights" of the postwar fusionist reevaluation of conservative and libertarian thinking.

He is a columnist appearing regularly in *The American Spectator*, *The Imaginative Conservative* and *Library of Law & Liberty* and is the author of ten books, including his most recent *The Enduring Tension: Capitalism and the Moral Order* and *Political Management of the Bureaucracy*.

Today, Devine writes and teaches young people, speaking about reviving the Constitution and what Reagan called the secret of its success: the way it harmonized freedom and tradition in its fragile balance called federalism.
Devine has been called "The best-known head of the Federal civil service since Theodore Roosevelt" - the Washington Post.

Time: 12:30 p.m., Wednesday, May 25, 2022, with a wine & cheese reception immediately following. YES – after an absence of two years the Library's famous reception is back.

R.S.V.P.: If you would like to attend telephone the Library at 410-727-0280 or reply by e-mail to jwbennett@barlib.org. Please remember to indicate whether you will be attending in-person or by way of Zoom. If you are joining us remotely, a Zoom link will be forwarded the week of the program.

Odds Are

Last Saturday I witnessed one of the most exciting sporting events in quite some time, the 148th running of the Kentucky Derby. The race was won by an 80 to 1 shot by the name of Rich Strike. The owners/trainer of the horse only discovered that they would be running the day before the race. The Derby is limited to twenty horses and Rich Strike was rated 21st, having worked his way up from twenty-four when a number of horses declared they would not be running. It was not until a late scratch of one of the twenty that his opportunity to run was claimed. Considered to have almost no chance of winning, the horse was very much ignored even by the announcer who was so busy concentrating on other horses, the first time he mentioned Rich Strike in earnest was when he was crossing the finish line.

Perhaps the only instance I can remember with a more unlikely outcome, a greater upset, was when the United Sates men's hockey team beat the vaunted Soviet Union team in the 1980 Winter Olympics. The American team was composed of college boys while the Soviets consisted of some of the greatest professionals in the game at that time. In a tune up leading into the Olympics the Soviets defeated the United States 10 to 3. All who witnessed it were of the opinion that it could have been much worse if the Soviets had wanted it to be. So, as the Americans skated off the ice with a 4 to 3 Olympic victory, on their way to an eventual gold medal, we could answer Al Michael's question of whether we believed in miracles, with a resounding "Yes we do!"

Although it is always exhilarating to watch an underdog pull off an upset, except of course when your team is the one being upset (stupid Miracle Mets), it is nice not to have to overcome the odds, to be better situated to win, to not have to climb that mountain. To better your odds in the legal arena, why not do what competitors have been doing for 182 years, come to the Bar Library. A case, a statute, a treatise, a database, why not avail yourself of what is going to help you cross the finish line

first. Put the odds in your favor by accessing one of the most extensive collections of legal materials available or one of the most comprehensive collections of databases you are going to find.

The material is ample, the costs de minimis: I mean, it does make sense does it not? Of course if you would prefer to go to court as an underdog, say an 80 to 1 shot, that is up to you.

I look forward to seeing you soon, here at the Library, or perhaps at the Preakness.

Joe Bennett

The Degradation of the Democratic Dogma

BY HENRY ADAMS

WITH AN INTRODUCTION BY
BROOKS ADAMS

CAPRICORN BOOKS
NEW YORK

CHAPTER I

The Heritage of Henry Adams

I AM trying, throughout this Introduction, to present the minds of these two powerful and original men, the grandfather and the grandson, in their true relation, as they stood, often unconsciously, first toward each other, and secondly toward that movement of democratic society, during the past century, which imposed on them the task of attempting to fathom the science and meaning of history. Plainly my function would be impossible were I not to expose in the first place, something of the constraining antecedents of both.

John Quincy Adams appears to me to be the most interesting and suggestive personage of the early nineteenth century, as my brother Henry is, in his philosophy, certainly one of the most so of the present century; but it is impossible to understand the elder, as it is the younger, man unless we begin by appreciating the education and the circumstances which made them what they were. George Washington was the model and the master of Adams, and George Washing-

ton had a constructive theory, which John Quincy Adams imbibed and strove to carry into effect, by which he hoped to consolidate a vast American community from which slavery should be eliminated and which should act as a universal pacifier. And Washington's topographical theory, on which all else rested, was shortly this:

In his wanderings in early life in the western wilderness, Washington conceived the principle that a consolidated community which should have the energy to cohere must be the product of a social system resting on converging highways, and, in the case before him, those highways must evidently be the Potomac and Ohio rivers connected by a canal. The point at which this main trunk avenue from west to east met the ocean must, from the nature of things, be somewhere near the site he afterward chose for the national capital, where a great industrial development might easily be stimulated; and with an energetic industrial development of their iron and coal, Maryland and Virginia must automatically become free. Accordingly as early as 1770 he wrote to Governor Johnson of Maryland as follows:

"There is the strongest speculative proof in the world to me of the immense advantages which Virginia and Maryland might derive (and at a very small comparative expense) by making the Potomac channel of

commerce between Great Britain, and that immense Territory . . . [the Mississippi Valley] the advantages of which are too great, and too obvious, I should think, to become the subject of serious debate, but which, through ill-timed parsimony and supineness, may be wrested from us and conducted through other channels, . . . How difficult it will be to divert it afterward, time only can show."[1]

Pushing his plan steadily, Washington in 1775 thought himself near success, but when the Revolutionary War broke out he had to leave Mount Vernon and take command of the army. Eight years of fighting only confirmed his faith in his plan, and after the peace he had reached the unalterable conviction that unless the west could be bound to the east by practicable trade routes American civilization must sink in chaos. At that particular moment the most threatening line of cleavage lay along the Alleghany Mountains, but no intelligent man could doubt that the cohesion between the North and South was almost equally precarious.

With his usual good sense Washington turned to the most pressing danger first and also to the one most easily to be averted. The chief danger of division which Washington foresaw was that the western country would

[1] Washington to Johnson, Congressional Documents, 1st Session, 19th Congress, Report No. 228, p. 28.

be repelled by the difficulty of the mountain trails, but would be correspondingly attracted toward the Gulf by the grade of the water shed. Louisiana then was, of course, in foreign hands. Conversely the chief threat Washington perceived for the success of his scheme was competition by the route of Lake Erie and the Hudson, but he expected to enjoy at least a temporary advantage by the British occupation of Niagara, and the other strategic points on the Lakes, which would give his canal, for the time, a monopoly ; and once fixed in a given route travel would be measurably stable.

Having reached these conclusions he obtained a charter for his canal from the Virginia legislature in 1785, and thereafter the stockholders elected him as their president. He knew well enough that his first difficulty would be with conflicting jurisdictions and this led him to write to a number of gentlemen to meet at Mount Vernon, whence came by successive gradations the gathering at Annapolis and the convention at Philadelphia, which framed the Constitution of the United States. The adoption of the Constitution incidentally ruined the Potomac Canal, since Washington was, as President of the Union, interdicted from private speculations, and there was no one to replace him as a canal president in Virginia, while his patriotism caused him to open the

northern route, by obtaining the cession of the posts, held by Great Britain, through Jay's treaty.

Washington's conception of a national capital corresponded in magnificence with his plan for the concentration of the nation. Built on converging avenues, it was to be adapted at once to military, commercial, administrative, and educational purposes, for at its heart was to be organized the university which was to serve as the brain of the corporeal system developed by the highways. The university was, in fine, to fix a standard of collective thought. In Washington's judgment the university could and should be made to be at once the most delicate, the most pervasive, and the most effective instrument for the amalgamation of a united people, and he strongly urged it upon Congress. As he himself said, his mind had been unable to contemplate any plan more likely "to spread systematic ideas through all parts of the rising empire" than would such an university. And as Washington believed in centralized education as essential to any true national life, so doubtless he would have advocated collective highway construction had he not himself been directly interested in what was to be, according to him, the main artery of commerce. Nor did Washington's views stop here. A necessary adjunct to the system of development which

he projected was the rooting out of slavery, for, according to him, nothing else could perpetuate the Union, and slavery, as Washington admitted to himself, could only [1] be peacefully abolished when it ceased to pay, since "the motives which predominate most in human affairs are self-love and self-interest." But slavery could only cease to pay when Virginia became industrial, and this was probably one of the main reasons why Washington advocated domestic industry. Much relating to this subject occurs in his correspondence. After he became President he grew more reticent, but he went to the verge of what he thought proper in urging Governor Randolph to induce certain Englishmen to set up woollen mills within the state. In short, at this stage of American social development, or at the time when Adams first began to take an intelligent interest in public problems, most intelligent Virginians deplored slavery. George Mason thought it a curse, degrading the population and condemning the community to agriculture and relative poverty, while Jefferson and Wyeth were in substance abolitionists, and Washington, as an eminent man of business, disliked and opposed servile labor because of its wastefulness. The difficulty in those days lay not here, but further south in South Carolina and Georgia,

[1] Retrospections of America, John Bernard, edition of 1887, p. 91.

who would enter into no compact with the North which did not guarantee them their property. Rutledge of South Carolina stated with exactness the true southern position, as it was afterward held universally south of the Potomac: "Religion and humanity have nothing to do with this question. Interest alone is the governing principle with nations. The true question is whether the Southern States shall or shall not be parties to the Union."

Finally a bargain was struck. The North agreed that, in computing the population entitled to representation in the House of Representatives and in the Electoral College, slaves should be counted in the ratio of three fifths of their number, that fugitive slaves should be surrendered to their owners wherever found, and that the United States should protect the states against domestic violence.

Verily, momentous issues hinged upon the success of Washington's experiment, for had Virginia developed industrially she must have become free, and with Virginia free there could have been no Civil War. But in 1799 Washington died, leaving his scheme of converging highways embryonic, and his federal capital, which should have been the focus of American exchanges, industry, and thought, little better than a wilderness. And he failed because he could not bring it about that his canal

should, at that precise moment of time, be built by government funds or, in other words, collectively. Also by 1804 his failure and the cause thereof had become apparent. And it was then that John Quincy Adams took up the theory of constructive centralization, not indeed precisely at the point at which Washington had left it, but with the expansion due to the operation upon the problem of a profound scientific mind. Adams could not so early understand that science might defeat its own intended end.

Before entering the Senate in 1803 Adams had probably never reflected upon the relation of transportation to civilization, but he could not have dwelt long at what Washington proposed to have made the focus of western vitality without observing the absence of energy at the heart. Thus he soon reached the same conclusion which Washington had reached long before, that a highly organized community could only be the offspring of a sound system of highways and that effective highways should be built by the State since, were highways built as a speculation by private persons, the common welfare must be subordinated to private profit. Thus he evolved his theory of internal improvements, which moulded his whole later life.

Mr. Adams said in conversation with another member

of Congress, T. R. Mitchell, in 1831 : "I was no worshipper of the tariff, but of internal improvement, for the pursuit of which by Congress, as a system, I claimed to be the first mover. It was by a resolution which I offered to the Senate of the United States on the 23d of February, 1807." [1]

Adams' resolution under another name brought forth Gallatin's well-known report, which Clay afterward advocated, but which Adams alone succeeded in formulating in his message to Congress in 1825, which embodied this doctrine, and which was set aside by Jackson, but which must be read by any one who would understand this phase of American development.

Most unfortunately for all concerned Adams' connection with internal improvements at this stage of the movement was short. A few days after he offered his resolution, the session closed. The next June the *Leopard* fired upon the *Chesapeake;* in consequence Adams voted for the embargo, whereupon he resigned from the Senate, and in 1809 was sent to Russia by Mr. Madison.

[1] Diary VIII, 444.

Resolved, "That the Secretary of the Treasury be directed to prepare and report to the Senate, at their next session, a plan for the application of such means as are constitutionally within the power of Congress, to the purposes of opening roads, for removing obstructions in rivers, and making canals; together with a statement of the undertakings of that nature now existing within the United States which, as objects of public improvement, may require and deserve the aid of government."

It is well to observe that at this period the African slave trade was suppressed, which raised the price of slaves and thus tended to throw slave breeding upon the border states, such as Virginia, making it gradually her most profitable industry. Adams only returned in 1817 to take charge of the State Department, and at once plunged into the Florida controversy, which involved the defence of Jackson for the execution of Arbuthnot and Ambrister, and absolutely absorbed his attention until the rise of the Missouri question in 1819. Meanwhile, however, the whole economic equilibrium of the country had been shifted by the appearance of the cotton gin. In 1792 Eli Whitney, a native of Massachusetts and a graduate of Yale, invented the cotton gin, whose purpose was to separate the cotton seed from the fibre, which it had been theretofore extremely tedious and expensive to do by hand. The machine was a success and though Whitney was robbed of his invention, he revolutionized cotton planting by making it highly lucrative, so much so that in 1830 the crop reached one million bales. The breeding of slaves for the cultivation of this cotton thus became more profitable in Virginia than industry in iron and coal. Finally Virginia came to export forty thousand blacks annually for the purpose, and it was then that Mr. Adams came, by the pressure of events, to con-

sider the Missouri question which arose therefrom. His diary is full of references to it. In his view the whole complexion of western civilization turned upon its right determination. Peace and war even were directly involved, and from the outset, as early as January, 1820, it had fixed his attention and in an aspect quite diverse from that which had presented itself to Washington:

"The Missouri question has taken such hold of my feelings and imagination that, finding my ideas connected with it very numerous, but confused for want of arrangement, I have within these few days begun to commit them to paper loosely as they arise in my mind. There are views of the subject which have not yet been taken by any of the speakers or writers by whom they have been discussed — views which the time has not yet arrived for presenting to the public, but which in all probability it will be necessary to present hereafter. I take it for granted that the present question is a mere preamble — a title-page to a great tragic volume. I have reserved my opinions upon it, as it has been obviously proper for me to do. The time may, and I think will, come when it will be my duty equally clear to give my opinion, and it is even now proper for me to begin the preparation of myself for that emergency. The

President thinks this question will be winked away by a compromise. But so do not I. Much am I mistaken if it is not destined to survive his political and individual life and mine." [1]

Thus the problem was gradually assuming in the mind of Adams both a scientific and a religious aspect, and I think that I cannot do better than to insert here the letter to Mr. Upham to which Henry alluded as explaining the scientific side of his program. Mr. Upham was a Salem clergyman who had asked Mr. Adams for details wherewith to write a notice of his life.

According to Adams' own repeated and most solemn asseverations made to himself as he came to die, his highest aspiration, his dearest hope, almost from his youth up, had been by his sustained support of applied science to rank as one of the benefactors of mankind. He admitted that he had failed.

WASHINGTON, 2 Feb., 1837.

REV. CHARLES W. UPHAM,
Salem, Mass.

MY DEAR SIR:

I fear I have done and can do little good in the world. And my life will end in disappointment of the good which I would have done, had I been permitted. The great effort of my administration was to mature into a permanent and regular system the application of all the

[1] Diary IV, 502, January 10, 1820.

superfluous revenue of the Union to internal improvement which at this day would have afforded high wages and constant employment to hundreds of thousands of laborers, and in which every dollar expended would have repaid itself fourfold in the enhanced value of the public lands. With this system in ten years from this day the surface of the whole Union would have been checkered over with railroads and canals. It may still be done half a century later and with the limping gait of State legislature and private adventure. I would have done it in the administration of the affairs of the nation. I laid the foundation of it all by a resolution offered to the Senate of the United States in 1806, and adopted under another's name (the Journals of the Senate are my vouchers.)[1]

When I came to the presidency the principle of internal improvement was swelling the tide of public prosperity, till the Sable Genius of the South saw the signs of his own inevitable downfall in the unparalleled progress of the general welfare of the North, and fell to cursing the tariff, and internal improvement, and raised the standard of free trade, nullification, and state rights. I fell and with me fell, I fear never to rise again, certainly never to rise again in my day, the system of internal improvement by means of national energies. The great object of my life therefore, as applied to the administration of the government of the United States, has failed. The American Union, as a moral person in the family of nations, is to live from hand to mouth, and to cast away instead of using for the improvement of its own condition, the bounties of Providence.

But, after all, was there a Providence?

[1] It was in fact presented on February 23, 1807, Diary VIII, 444.

This must serve as my exposition of Mr. Adams' policy of collective administration as a statesman and as a Christian, which he had evolved on the theory that man is a reasoning animal and that there is a God or a conscious ruler of the universe, whom man can intelligently serve and with whom he can covenant. Assuming that there was in existence such a universe and such a benevolent God, Mr. Adams went on to explain as a scientific fact that a volume of energy lay stored within the Union, which as an administrator he could have developed had he been able to work at leisure and had he been supported by his Creator. Also this potential energy would have raised the people of this country beyond the danger of severe economic competition, practically, forever. Such a consummation had, however, been made impossible by the growth of the planting, or slave interest, permitted by the Almighty, which was an offence to God. This was a catastrophe which he could never understand nor forget — supposing there to have been a Providence. The substance of this appears in the following extract from a very famous address made by him in 1842, almost at the close of his active political life, and when he appreciated that Civil War was imminent.

"The Southern or Slave party, outnumbered by the

free, are cemented together by a common, intense interest of property to the amount of $1,200,000,000 in human beings, the very existence of which is neither allowed nor tolerated in the North. . . . The total abandonment by President Jackson, of all internal improvement by the authority of Congress, and of all national protection to domestic industry, was a part of the same system, which, in the message of December, 1832, openly recommended to give away gratuitously all the public lands, and renounce forever all idea of raising any revenue from them. This was nullification in its most odious feature. The public lands are the richest inheritance ever bestowed by a bountiful Creator upon any national community. All the mines of gold and silver and precious stones on the face or in the bowels of the globe, are in value compared to them, but the dust of the balance. Ages upon ages of continual progressive improvement, physical, moral, political, in the condition of the whole people of this Union, were stored up in the possession and disposal of these lands. . . .

"I had long entertained and cherished the hope that these public lands were among the chosen instruments of Almighty power, . . . of improving the condition of man, by establishing the practical, self-evident truth of the natural equality and brotherhood of all mankind,

as the foundation of all human government, and by banishing slavery and war from the earth. . . . The project first proclaimed by Andrew Jackson, . . . of giving away the national inheritance to private land jobbers, or to the states in which they lie . . . was the consummation of the Maysville road veto policy . . . to perpetuate the institution of slavery and its dominion over the North American Union. [1]

"I have earnestly hoped that those states themselves would at no distant day abolish slavery. My hopes of these events are not wholly abandoned but weakened and deferred. The interdiction of the African slave trade has had the unfortunate effect of giving the monopoly of the slave-breeding trade to Maryland and Virginia, and it is lamentable to see that the most sordid of passions has thus been enlisted on the side of perpetual slavery."

Having now explained in his own words Mr. Adams' opinions as a statesman and as a scientist touching national collective administrative development, we approach what to him was the most vital of all questions, and that was the relation of his policy of internal improvement to God. First of all I must premise that, as a Christian, Mr. Adams still at this date, in theory, believed, and probably at the time of his election to the presidency

[1] Address to Constituents, Sept. 17, 1842, pp. 22, 23, 24, 51, 52.

believed without a doubt, in the existence of a Supreme and omnipotent Creator of the world, whose nature was benign, and of a "crucified Saviour" who proclaimed immortal life and who preached peace on earth, good-will to men, the natural equality of all mankind, and the law, "Thou shalt love thy neighbor as thyself." Such being in general his theological belief,[1] he thus stated his conception of the relation which this divine principle bore to his duty to develop by all means in his power the resources of the United States in such a manner as should conduce most to the moral elevation and physical well-being of the whole people. Such a movement in his view, as I have already shown, hinged on the scientific development of internal resources, so that they might be utilized without waste.

QUINCY, 13 July, 1837.

REV. J. EDWARDS,
President of the Theological Seminary, Andover.

REV. SIR;

. . . The occasion naturally called for an exposition of my opinions with regard to the inconsistency between the principles asserted in the Declaration of Independence and the existence of Domestic slavery. I thought it also a fitting occasion to state the grounds of my belief that the ultimate extinguishment of slavery throughout the earth was the great transcendent earthly object of

[1] Diary XI, 341.

the mission of the Redeemer. . . . That the Declaration of Independence was a leading event in the progress of the gospel dispensation. . . . That its principles lead directly to the abolition of slavery and of war, and that it is the duty of every free American to contribute to the utmost extent of his power to the practical establishment of those principles. . . .

The difficulty which Mr. Adams encountered, in reducing his theory as a Christian, to practice may be stated in a nutshell, and the result to which it led him shall follow in his own words.

Mr. Adams as a scientific man was a precursor of the later Darwinians who have preached the doctrine of human perfectability, a doctrine in which the modern world has believed and still professes to believe. Granting that there is a benign and omnipotent Creator of the world, who watches over the fate of men, Adams' sincere conviction was that such a being thinks according to certain fixed laws, which we call scientific laws; that these laws may be discovered by human intelligence and when discovered may be adapted to human uses. And if so discovered, adapted, and practised they must lead men certainly to an approach to perfection, and more especially to the elimination of war and slavery. The theory was pleasing, and since the time of Mr. Adams it has been generally accepted as the foundation of Ameri-

can education and the corner stone of democracy. But mark how far it led Mr. Adams astray in 1828, and how at last it broke his heart. Eli Whitney's cotton gin was certainly one of the most famous and successful of the applications of science to a supremely bountiful gift of God, in making American cotton serviceable and cheap to the whole human race. But it propagated slavery, it turned the fair state of Virginia into an enormous slave-breeding farm, whence forty thousand blacks were annually exported to the South, and thus inexorably induced the Civil War; so with the public lands which Mr. Adams would willingly have given his life to save for his contemporaries and their posterity. Railroads and canals raised the price of these lands by making them accessible. And this is what Mr. Adams saw in the House of Representatives in 1838, and this is his comment on the humanizing effect of applied science. It was the triumph of Benton and Jackson, of the very essence of evil, over him. "The thirst of a tiger for blood is the fittest emblem of the rapacity with which the members of all the new states fly at the public lands. The constituents upon whom they depend are all settlers, or tame and careless spectators of the pillage. They are themselves enormous speculators and land-jobbers. It were a vain attempt to resist them here." This was

written on June 12, 1838, and thus had the bargain of Benton with the planters been consummated by means of applied science.[1] Such bargains were to have been anticipated and would have been taken as a matter of course by an ordinary political huckster, but Mr. Adams, though after his defeat in 1828 he did practically, as he states here, give up the contest, because he had ceased to believe that God supported him, never could nor ever did reconcile himself to the destiny which this betrayal by God entailed on the world.

Nevertheless, it was all the logical result of competition, of applied science, and of education as stimulating social ambition, and therefore greed. As an old man Mr. Adams sat in Congress and watched the competition between slave and free labor gathering the heat which presaged a convulsion, and he confessed to himself that "the conflict will be terrible." On the other hand he had loved his mother as he never loved another human being on the earth. Come what might he could not surrender his hope of immortality. To have been driven to such an admission would have killed him. This internal conflict forced him to seek to sustain his sinking faith by such pretences as he found at hand.

In 1843 he was old, and physical ailments were crowd-

[1] "Memoirs" lx. 235.

ing upon him. Among the worst of these was catarrh, or "tussis senilis" as he called it, which afflicted him much. One communion Sunday in March he was kept at home by this cough, and he employed his time in recording the following reflections upon his past life and his present belief. It seems hardly credible that a man of his energy of mind should have admitted what a pang so slight a disappointment, which at an earlier day he would have ignored, actually gave him as he peered at the end into the gate of death.

"I have this day been debarred by my disease [catarrh] from the privilege of attendance upon public worship, and felt it with deep mortification. The time has been, chiefly in foreign countries, when I have too long intermitted the duty of that attendance. Of this I charge myself especially when in Holland, in Berlin, in St. Petersburg, and last in France. . . . For this I blame myself; but the importance of regular attendance upon the duties of the Christian Sabbath in social communion has impressed itself more deeply on my mind in proportion as I have advanced in years. I had neglected to become a member of the church till after the decease of my father — another omission which I now regret. I have at all times been a sincere believer in the existence of a Supreme Creator of the world, of an immortal principle within

myself, responsible to that Creator for my conduct upon earth, and of the divine mission of the crucified Saviour, proclaiming immortal life and preaching peace on earth, good will to men, the natural equality of all mankind, and the law, 'Thou shalt love thy neighbor as thyself.' Of all these articles of faith, all resting upon the first, the existence of an Omnipotent Spirit, I entertain involuntary and agonizing doubts, which I can neither silence nor expel, and against which I need for my own comfort to be fortified and sustained by stated and frequent opportunities of receiving religious admonition and instruction. I feel myself to be a frequent sinner before God, and I need to be often admonished of it, and exhorted to virtue. . . . This forms a regular portion of my habits of life, and I cannot feel the privation of it without painful sensibility." [1]

Mr. Adams considered his life a failure; and from his point of view it was a failure; and in the same way and by a parity of reasoning Henry considered his life a failure, because he had not accomplished what at the outset he hoped. For example, John Quincy Adams wrote only a few days before the stroke of paralysis which ended his work: "If my intellectual powers had been such as have been sometimes committed by the Creator of

[1] Diary XI, 340, 341.

man to single individuals of the species, my diary would have been, next to the Holy Scriptures, the most precious and valuable book ever written by human hands, and I should have been one of the greatest benefactors of my country and of mankind. I would, by the irresistible power of genius and the irrepressible energy of will and the favor of Almighty God, have banished war and slavery from the face of the earth forever. But the conceptive power of mind was not conferred upon me by my Maker, and I have not improved the scanty portion of His gifts as I might and ought to have done." Then he adds, "May I never . . . murmur at the dispensations of Providence." In other words he was disappointed because he was not supernatural. And yet, as a matter of fact, Mr. Adams had one of the most powerful scientific minds of his age, and of this he has left a record in his report on weights and measures. Among my father's sons not one save Henry had any aptitude for science; the others were ordinary lawyers or men of affairs, but in Henry the instinct which he inherited from his grandfather showed itself strongly and early. Henry in one of the most charming passages in his "Education" has told us how one day in London in 1867, when he was not yet thirty, Sir Charles Lyell asked him to review his "Principles" for him in America, and afterward, in token

of his appreciation and gratification at Henry's work, left him his field compass. Now Sir Charles, whom I, as a child, very well remember as a dear friend of my mother, though a most amiable and delightful old gentleman, was by no means careless of his own reputation and was more particularly anxious to be well presented to the American public. Hence the compliment to Henry was the more flattering coming from so old a man, then standing at the apex of scientific fame, toward a young one who had as yet made not even a shadowy reputation in the literary world. Nor had Henry any education in geology save what he gave himself. But Sir Charles, to his great credit, recognized thus promptly Henry's intelligence and industry. How well the work was done any one may see by reading the paper in the *North American Review*. And so it was with John Quincy Adams from whom he inherited his talent.

CHAPTER II

The Heritage of Henry Adams

WHEN Mr. Adams returned home in 1817 to take charge of the State Department, he found a resolution of the Senate awaiting him dated March 3, 1817, directing the Secretary of State to "prepare and report to the Senate a statement relative to the regulations and standards for weights and measures in the several states, and relative to the proceedings in foreign countries, for establishing uniformity in weights and measures, together with" suggestions as to the course proper to be adopted by the United States.

Most Secretaries of State have been content to discharge, with what credit they might, the duties of the office, and have found those ample to absorb their energy, but Mr. Adams was a man of a different kidney, and an estimate by the youngest of his grandsons, who has himself become old, of the activities of his grandfather contrasts strangely with his ancestor's morbid depreciation of himself.

One of his expedients for finding time was to rise at four o'clock in the morning. With this explanation it

may, perhaps, be easier to understand how he succeeded in writing his report while holding office as Secretary of State at a period of high pressure in public business. For it was during this interval that, among other things, the Monroe Doctrine was formulated, that Jackson nearly brought us into war with England by his execution of Arbuthnot and Ambrister, and that the despatch to Erving was written. And in those days Mr. Adams had little help even in the commonest drudgery. He had no private secretary, much less a stenographer. He wrote every word himself, often copying the more important papers with a hand palsied by writer's cramp. At last in October, 1819, he resolutely got to work. He was confronted with the resolution of the Senate directing the Secretary of State to report upon the action taken by other nations regarding weights and measures and to suggest a policy for the United States.

Mr. Adams had a peculiar mind. It concentrated slowly but when centred it acted with extreme intensity. Once absorbed he lapsed into a species of trance in which he forgot all else. But the transition from politics to science was slow and painful.

Among the responsibilities of government few are graver than the regulation of weights and measures, and this responsibility increases with every advance in trade,

in wealth, in applied science, or in invention. The coinage is a matter of weights; trade turns on measures, while the standardization of machinery presupposes absolute accuracy of measurement. One of the chief glories of the French Revolution was the perfecting of the metric system. Now that the metric system has been long established we can with difficulty realize the confusion which its introduction caused. As Mr. Adams observed in his report: "The substitution of an entire new system of weights and measures, instead of one long established and in general use, is one of the most arduous exercises of legislative authority. There is indeed no difficulty in enacting and promulgating the law; but the difficulties of carrying it into execution are always great, and have often proved insuperable."

To a great degree the French have always found them so. To this day they have never succeeded in applying the decimal system to time. "Weights and measures may be ranked among the necessaries of life, to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; to the labors of the husbandman; to the ingenuity of the artificer;

to the studies of the philosopher; to the researches of the antiquarian; to the navigation of the mariner, and the marches of the soldier; to all the exchanges of peace, and all the operations of war." Suddenly one of the chiefest of the family of nations shifted its standard, and forthwith all other nations sought an adjustment. They seek one still. Accordingly many governments appointed commissions of eminent scientists to report not only on the value of the metric system itself, but upon the means of reaching a common standard. And these problems have never yet been satisfactorily solved. Parliament early bestirred itself, Congress somewhat later. And this was the resolve which awaited Mr. Adams after an absence of eight years. He had no commission with its resources at command. He was absolutely isolated and alone, and besides he found the Department itself in chaos. The confusion was in part due to the sack of Washington, but still more to the slackness which had prevailed from the foundation of the government in the filing of correspondence. Plunged forthwith in the Spanish turmoil which lasted from the occupation of Amelia Island in 1817, to the revolution which provoked the Monroe Doctrine, Mr. Adams passed much of his time in hunting for essential documents, and every practical man will sympathize with his nervous irritation at the strain put

upon him by having to teach his clerks some rudiments of order, at the same time that he had to rout bitter adversaries in front, and strengthen timid colleagues behind. Doing, besides his own work as Secretary, that of a common clerk, he was at the mercy of such an unconscionable bore as the British Minister, Stratford Canning, who thought nothing of idling away three or four hours of a morning, at the Secretary's expense.

After his vacation in the summer of 1819, Mr. Adams returned to Washington in October and resolutely attacked his report. Probably no political conflict in which he ever engaged wrought his nerves to so high a tension, for in science he entered into, as it were, a foreign field and one in which he felt much diffidence, as was reasonable, for the difficulties he encountered might have discouraged the best trained mathematician and physicist in the world. Working under the best conditions with every appliance and vast libraries at hand, the combined talent of France and England had reached no satisfactory conclusion touching the relation of the foot to the metre. And Adams had to criticise the discrepancies between the various measurements of the British pendulum vibrating seconds in vacuo. The difference according to him between a committee of the House of Commons and Captain Kater was an one hundred and twenty-sixth part

of an inch. Thus even in London or Paris the investigator had much to contend with, but without doubt no considerable capital in the civilized world was so bereft of experimental appliances as was then Washington, which was little better than a poorly administered southern village, with all the educational slackness which that implies. Nor had Adams the training or experience to be able to make good these deficiencies from his own resources. Even his mathematics he had to furbish up as he went along. In science he was self-educated. He could neither invent new apparatus, nor repair injured pieces. Hardly could he command the use of a chronometer. Worst of all, he found no kindred mind from which he could draw a stimulant. Nor could he give to his work either the best of his time during the day or the best days of the year. The only hours he could veritably call his own were from three o'clock in the morning until breakfast, and those only in summer, in hot weather, when work was fatiguing almost beyond endurance. In winter social engagements at night prevented him from rising so early, and visits at the office effectually put a stop to serious concentration during the day. Therefore to work consecutively he had to give up his visit to his father at Quincy in August, which almost broke the poor old man's heart, after his wife had died, as oc-

curred long before 1819. And thus John Quincy Adams passed all summer laboriously writing in Washington, though writing had become beyond measure irksome to him in the moist heat of the Potomac Valley, which always debilitated him.

For months his diary is filled with plaints about the pressure on his time, and the misery of trying to concentrate his attention in Washington in summer, and with strange accounts of the rude experiments to which he was constrained to resort to test his theories. For example, one set of his instruments was an old pair of bank scales "which belonged to the Branch of the old Bank of the United States, but which having been disused are not regulated and have grown rusty."

Another time he was quite at a loss to find out the content of an ordinary hogshead of Bordeaux. In hardly any other city in the world would he have had to do more than to ask at the chief grocer's counter, but in Washington nobody knew. These daily incidents illustrate the shifts to which he was driven.

The whole diary is filled for months with entries which would be of absorbing interest to any reader who wished to measure the natural scientific powers of my grandfather but which would be misplaced here. I am engaged not in writing a biography of John Quincy Adams

but in making only such a statement of the temperament of the man as may serve to elucidate the actions and writings of one of his grandsons as well as his own. Hence, I must pass over the details of the composition of the Report, and hasten at once to its publication.

As the month of October, 1820, wasted, Mr. Adams' anxiety to finish it became so acute that he suffered severely from insomnia, and yet in spite of all obstacles, even of Stratford Canning, who lounged in the office at the rate of three hours a day and then insulted the Secretary, thereby throwing a mass of additional copying on his hands, Adams succeeded in sending his report to Congress on February 22, 1821. This was also the day on which the Florida treaty was ratified, which Mr. Adams held to be his great diplomatic triumph.

At the moment of publication Mr. Adams felt abashed, as it was reasonable that an essentially modest man, like himself, should feel, for though he knew that he had done his best, he dared not hope that he had made good his deficiencies, and he saw no one to whom he could turn for criticism or for aid in his perplexities. Before the final revision, indeed, he sent the copy to Calhoun, who, while generally approving, suggested a few slight alterations and omissions, all of which Adams adopted. But Calhoun was by no means an authority on science.

And "who was he," as Adams told himself despondently, to venture to expound, "a subject which has occupied for the last sixty years many of the ablest men in Europe, and to which all the power and all the philosophical and mathematical learning and ingenuity of France and Great Britain have been incessantly directed?" At first the scientific world was inclined to take him at his own valuation. No trade or profession likes interlopers, science, perhaps, least of all, and so far as immediate success went, Mr. Adams' very strength militated most strongly against him. Science could not believe that it could be sound and yet literary, artistic, and historical. A man who produced a gem like the Report of Weights and Measures must necessarily be a quack. For the Report on Weights and Measures is a vast effort at generalization. It was unprecedented. It deals with history and philosophy quite as much as with physics. Richard Rush, who was very intelligent, laid his finger instantly upon the weak spot. "I have finished a first perusal of the report on weights and mesures and must say, with far more interest than I ever expected to feel in the pursuit of such a discussion. . . . Of its various scientific deductions, I am no judge, but naturally place these at a high rate from the abundant research of which the investigation everywhere bears evidence. It is not

always that elaborate deductions of science, come recommended by so much literature and eloquence. I have always thought the subject dry, but I see that it is most fruitful; I had thought it circumscribed, but I see that it embraces everything."

As Rush intimated the Report was too broad for any contemporary audience. It contained too much science for the general public, and too much literature for the profession. Science always tends to a narrow specialization. Mathematicians in especial distrust inferences based on premises drawn from history or philosophy. Conversely Rush said bluntly that his opinion on the technical side was worthless. And yet it was upon its technical excellence that the work must stand or fall. Precisely in the same way, John Adams, who would have devoured with ravenous relish every word his beloved son might have chanced to write on jurisprudence, metaphysics, politics, or history, had to admit that he could not read physics, so widely were their minds sundered on this subject which he had never studied and for which he had no aptitude.

LITTLE HILL, MAY 10, 1821.

MY DEAR SON;

My thanks are due to you, and are most joyfully given, for two copies of your "Report on Weights and Meas-

ures," . . . Though I cannot say, and perhaps shall never be able to say, that I have read it, yet I have turned over leaves of it enough to see that it is a mass of historical, philosophical, chemical, metaphysical and political knowledge, which no industry in this country but yours could have collected in so short a time. . . . Washington used to say sometimes, "They work me hard." I am sure they work you harder, I fear they will work you up too soon. I am glad to perceive that your brother [Thomas Adams, the judge of the Court of Common Pleas], is reading the book with attention.

The poor old man loathed the Report for it kept his son in Washington whom he was wearing his heart out to see, and so the letter ended, with a prayer for pity; "I long to see you once more and hope for that pleasure as soon as the public service will permit, I subscribe with pride and exquisite delight, your affectionate father." In America the work fell dead. That it should have done so was to be expected since literary suspicion and incredulity of compatriots is a national quality. We have never overcome that trait of provincialism. For an American author to receive credit in his own country, he must first win reputation abroad. Thus it happened in the case of Mr. Adams. He obtained no word of intelligent criticism until, thirteen years after the book had been published, he made the following entry in his diary, touching a letter which had reached him in Quincy from

one Colonel Pasley, of the Royal Engineers, who had himself been publishing a work on Weights and Measures. He "says he has done justice to my report made to the Senate of the United States in 1821, acknowledging that my historical account of English Weights and Measures is more correct than any that has been given by any English writer, including the reports of the committees of the House of Commons. This acknowledgment, thirteen years after the publication of my report, was very gratifying to me. If either of my children or any of theirs should ever read this page, let me tell him that Colonel Pasley's testimonial to that single point, the accuracy of my historical investigation of English weights and measures, is but one of many discoveries which he will find in my report, if he will have the courage and perseverance to read, and examine it as he reads. He will find the history not only of English but of Hebrew, Greek, Roman, and French weights and measures, traced to their origin, in the natural history of man and of human society, such as he can find in no other writer, ancient or modern.

" He will find a philosophical discussion of the moral principles involved in the consideration of weights and measures, and of the extent and limitation of its connection with binal, decimal, and duodecimal arithmetic, for which he might look in vain elsewhere; and if he should remark

that not one of his countrymen ever noticed these peculiarities of that report, he may amuse himself by inquiring why and how it has happened. The report, from the day of its publication, has, in this country, scarcely been known to exist; and this commendation of it, coming back from England, is, therefore, the more welcome to me." [1]

Mr. Adams apparently intended to intimate to us, his descendants, that we should do well to be modest in our expectations if we looked for recognition for anything which we might produce containing original ideas, or attempts at generalization. For what he says of himself is true. His work of weights and measures is monumental and has, since his death, been so recognized by a younger generation who did not feel themselves to be in competition with him. But the scientific is like any other profession, it looks with jealousy on an interloper, who undertakes to generalize from premises of which scientific men are perhaps ignorant. For, as a rule, no scientist pretends to know much history. Once, however, that the value of the report had been demonstrated ample recognition came.

Twenty-one years after its author's death, Professor Charles Davies, who long had been eminent, and who

[1] Diary IX, 185.

for many years had filled the chair of mathematics at Columbia and at West Point, was appointed by a committee of the University Convocation of the State of New York, to examine into the policy of Congress in enacting a statute in 1866 making the metric system lawful in the United States. Professor Davies passed two years in investigation himself, and then submitted his report in the form of a volume of three hundred and twenty-seven pages, divided into four parts. To part three of this exhaustive work he prefixed the following introduction which is the more remarkable, as few scientific works retain their value, as text-books, very long. This was written fifty years after publication.

"Part III. is the able and extraordinary report of Mr. John Quincy Adams. He examined the whole subject with the minuteness and accuracy of mathematical science — with the keen sagacity of statesmanship, and the profound wisdom of philosophy. To that report nothing can be added, and from it nothing should be taken away. Hence the committee have published it in full, that the public and especially the teachers of the country, may understand the entire subject in all its phases and in all its relations."

Another quarter of a century elapsed, and in 1906, Sir Sandford Flemming, as chairman of a committee ap-

pointed by the Royal Society of Canada to consider the forty-inch metre, on May 25, presented a report accompanied by an address in which after observing that "International uniformity in weights and measures has been desired for many generations," went on to cite the opinions of several eminent philosophers. The first among these to whom Sir Sandford referred was John Quincy Adams.

"Among the many distinguished men who within the last hundred years have studied the question with the view of finding a solution to the important international problem was John Quincy Adams, who three years before he became the sixth president of the United States drew up a report on weights and measures which is still a classic, and shows an almost incredible amount of investigation."

Finally, in 1906, Messrs. Hallock and Wade published an elaborate work on the "Evolution of Weights and Measures," presumably, considering the high reputation of these gentlemen, containing the maturest conclusions of modern science. In this work the authors devote some considerable space to the report of John Quincy Adams, with whose conclusions they disagree. Their criticism, nevertheless, begins thus: "Adams . . . submitted [a report] on February 22, 1821, that has since been

considered almost a classic in American metrology. . . . While it is, of course, impossible to do justice to the completeness and philosophic treatment of the subject in this report, by any summary or brief extracts, nevertheless a few passages will show how keen was Mr. Adams' understanding of the matter, and how well he appreciated the advantages of the French system."[1]

Precisely in the same way I have some reason to expect that much of the scientific world will sneer at Henry's inferences in "Phase." And in publishing his essay I give full weight to my grandfather's warning to expect nothing.

But touching John Quincy Adams, from whom Henry received so abundant a share of his inheritance of intellectual capacity, science was his tenderest part, and the part where he received the least sympathy and intelligent support from his family or friends. Henry has told us how at Quincy no one took the old man's gardening seriously, and in the country at large his luck was little better, and this tried him, perhaps more than all the rest. For example, when president, he observed how the live-oak was wasted and abused and he attempted

[1] "Outlines of the Evolution of Weights and Measures and the Metric System, by William Hallock, Professor of Physics in Columbia University, and Herbert T. Wade, Editor for Physics and Applied Science, The New International Encyclopedia," pp. 115, 116.

to protect it. In 1828 he matured a plan to preserve a forest of live-oak near Pensacola, because the natural history of the live-oak had many singularities and had not been observed; and this plantation was growing luxuriantly, and numbered upwards of a hundred thousand trees, to which he added a nursery of seedlings that their habits might be observed. All this, as Adams bitterly observed afterward, "is to be abandoned by the stolid ignorance and stupid malignity of John Branch and of his filthy subaltern, Amos Kendall." He could not reconcile himself "to the malicious pleasure of [Jackson's administration,] of destroying everything of which I had planted the germ."

With Mr. Adams science and education were passions, and amounted to a religion, as I have said. For forty years ago the theory of progression towards perfection was popularly accepted as Henry has described it to have been in his "Education." "Unbroken Evolution under uniform conditions pleased every one, — except curates and bishops; it was the very best substitute for religion."[1] All of which was perfectly true of London in the sixties, but it was not thus that John Quincy Adams mingled his science with his God. To him the issue was, literally, one of life and death, for were his premises false, and were he

[1] "Education," 225.

mistaken in his belief that the universe were ruled by a conscious and benign God, then progressive improvement would be impossible, civilization would be a failure, and the world itself a place in which he cared not to live.

Never was crusader more sternly in earnest in his belief in the miraculous virtue of the relics which he had suffered so much to conquer and by which he hoped to gain felicity on earth and in heaven, than was John Quincy Adams in 1828 in his faith that there was a God in heaven whose thought was manifested in those truths which he described as scientific laws, which would, were they properly studied and observed, certainly lead to such an approach to perfection as would enable mankind to suppress forever the ulcers of war and slavery.

Doubtless as the election of 1828 approached he had his fears. He mistrusted himself as to whether he had duly served his Creator. But he never suspected that God could not cause him to triumph if he would. In the same way, Guy de Lusignan with his crusaders fought Saladin at Tiberias in 1187, in the faith that the cross they bore before them would give them victory, if only God would work his miracle. Both believers were totally defeated and the effect on their world was much the same. After Tiberias the relics lost their value, so much so that from having been accepted as the best possible security

for loans by bankers, they fell to the point where they became an absolute danger to the possessor, as the monks found to their cost in England in the sixteenth century. Adams did not fare quite so badly as did the wretched Abbot of Glastonbury under Henry VIII, but he suffered enough to embitter him permanently and to make him seriously doubt the existence of a God and of the efficacy of science as a guide. Nevertheless he persevered to the end of his life, always hoping against hope. To him the alternative was too dreadful for contemplation. It so happened that in October of 1830 his neighbors of the Plymouth District nominated Mr. Adams for Congress, and in the following November they elected him by a great majority. On the evening of November 6, the day on which he heard the news, he sat alone at home, meditating on what had befallen him. The event to him was quite unexpected. It fairly bewildered him. He thus poured out his feelings: "Twenty-two towns gave 2565 votes, of which 1817 were for John Quincy Adams. . . . I am a member elect of the Twenty-Second Congress. . . . My return to public life in a subordinate station is disagreeable to my family, and disapproved by some of my friends; though no one has expressed that disapprobation to me.

"For the discharge of the duties of this particular station

I never was eminently qualified, possessing no talent for extemporaneous public speaking, and at this time being in the decline of my faculties, both of mind and body. This event, therefore, gives me deep concern and anxious forebodings . . . No one knows, and few conceive, the agony of mind that I have suffered from the time that I was made by circumstances, and not by my volition, a candidate for the presidency till I was dismissed from that station by the failure of my reëlection. They were feelings to be suppressed and they were suppressed. No human being has ever heard me complain. . . .

"But this call upon me by the people of the district in which I reside, to represent them in Congress, has been spontaneous, and although counteracted by a double opposition, federalist and Jacksonite, I have received nearly three votes in four throughout the district. My election as President of the United States was not half so gratifying to my inmost soul. No election or appointment conferred upon me ever gave me so much pleasure. I say this to record my sentiments; but no stranger intermeddleth with my joys, and the dearest of my friends have no sympathy with my sensations."

Yet almost incredible as it may seem, despite his misgivings, Mr. Adams after taking his seat in Congress, though opposed through the remainder of his life by a

series of democratic administrations and by a reactionary, victorious, and malignant slave oligarchy, succeeded rather better as a lonely member of the House in the advancement of those ideas which he considered that he had been born to preach, than he had as President of the United States, with all the power and influence which that office gives.

Certainly toward the end of his life he exercised a far greater influence on popular opinion than he had ever attained to before. Inside of Congress and out, he toiled unceasingly to improve education and to stimulate science. He urged on Congress the organization of a naval academy to train men of the quality of his contemporaries, Maury, Gilliss, and Davis, and he never remitted his agitation for an observatory. In his vacations he experimented on tree planting and lectured on education. In New York and Philadelphia he attended conventions of learned societies, and he so impressed himself on those with whom he came in contact, that he finally made even a slave-holding Congress recognize his ability and use him whenever they thought it safe to do so.

Occasionally scientific matters came before Congress when special committees were appointed and then the speaker not infrequently appointed Adams chairman, when he seldom failed to offer some suggestion of appro-

priations and to sustain them with a luminous report. An example of such a paper is the report he made in 1840 on a petition of the American Philosophical Society, headed by Bache, asking for magnetic observatories. But his most brilliant service in this connection was his defence of the Smithson bequest. In 1826 James Smithson bequeathed £100,000 to the United States, to found in Washington, under the name of the Smithsonian Institution, an establishment for the "increase and diffusion of knowledge among men." Finally, after the death of Mr. Smithson in 1835, through the services of Mr. Rush, £104,599 in gold were brought home and in 1838 were deposited in the mint in Philadelphia, and then at once an acrimonious controversy touching the execution of the trust set in, fomented by every adventurer in search of a job in the United States. The struggle lasted several years, and meanwhile the only practical step the government took was, as a popular measure, to invest the whole fund in Arkansas bonds, which proved to be worthless. Mr. Adams, as chairman of the House Committee, made a series of reports, the most famous of which is that of 1840, in which he presented resolutions pledging the United States to preserve the principal of the bequest unimpaired and so invested as to yield six per cent, while the income of the fund alone should be used for the objects of the

bequest. Mr. Adams advised that the first appropriation should be for the establishment of an observatory. Other reports of the same character followed. So full of vigor are these papers that Professor Nourse, the historian of the Naval Observatory, observes in his memoir, published in 1873, alluding to the report of 1842, "The remark has been made by a competent judge that it is 'well worth the perusal of every lover of the glorious science of astronomy, both for the richness of its information and the beauty of its eloquence.'" [1]

Finally even so reactionary a body as an American Congress, dominated by slave-holders, perceived that an observatory was an essential part of the equipment of any civilized government and took steps to build one at Washington. Needless to say this plan was enthusiastically approved by Mr. Adams, but years were still to elapse before his anxieties were to cease and his labors were to be crowned with success touching the Smithsonian. Nevertheless, among all Mr. Adams' scientific interests astronomy stirred him most, and an attempt to stimulate that branch of science finally cost him his life. When he described his emotions on contemplating the heavens, he sometimes used language of great imaginative power.

[1] Memoir of the Founding and Progress of the United States Naval Observatory, Professor J. E. Nourse, U. S. N. p. 25.

"To me, the observation of the sun, moon, and stars has been for a great portion of my life a pleasure of gratified curiosity, of ever returning wonder, and of reverence for the Creator and mover of these unnumbered worlds. There is something of awful enjoyment in observing the rising and setting of the sun. That flashing beam of his first appearance upon the horizon; that sinking of the last ray beneath it; that perpetual revolution of the Great and Little Bear round the pole; that rising of the whole constellation of Orion from the horizontal to the perpendicular position, and his ride through the heavens, with his belt, his nebulous sword, and his four corner stars of the first magnitude, are sources of delight to me which never tire. . . . There is, indeed, intermingled with all this a painful desire to know more of this stupendous system; of sorrow in reflecting how little we can ever know of it; and of almost desponding hope that we may know more of it hereafter."[1]

Thus astronomy appealed to Mr. Adams both through the imagination and the reason, and he concluded, and probably correctly, that astronomy would be the best instrument wherewith to rouse to an interest in science a somewhat apathetic community. Up to 1844 the United States did not possess a single observatory. Mariners

[1] X, 38.

had to depend upon the calculations made at Greenwich. A nautical almanac was impossible. Even the longitude of Washington could not be fixed with proper exactness, and this inertia filled Mr. Adams with shame. In his first message to Congress he urged the erection of an observatory in words which filled the friends of General Jackson with mirth.

"It is with no feeling of pride as an American, that the remark may be made, that, on the comparatively small territorial surface of Europe, there are existing more than one hundred and thirty of these light-houses of the skies; while throughout the whole American hemisphere there is not one." The phrase "light-houses of the skies" probably brought more ridicule on Mr. Adams than anything he ever said. The line which divided John Quincy Adams from even the most enlightened of his political contemporaries was most distinctly his aptitude for science. He alone among public men of that period appreciated that a nation to flourish under conditions of modern economic competition, must organize its administrative, as well as its social system upon scientific principles.

Years elapsed, and Mr. Adams grew old. Apparently he had achieved little toward realizing his dream of doing a work beneficial to mankind. He had been defeated in

his effort to organize the national administration of public affairs upon a scientific basis, he had failed to accomplish anything of moment by his experiments in cultivation at Quincy, he had indeed been greatly ridiculed even in his family; he had not even been able to induce Congress to execute honestly its trust relative to the Smithsonian bequest, but he had won renown as an anti-slavery champion. His fame and popularity were astounding.