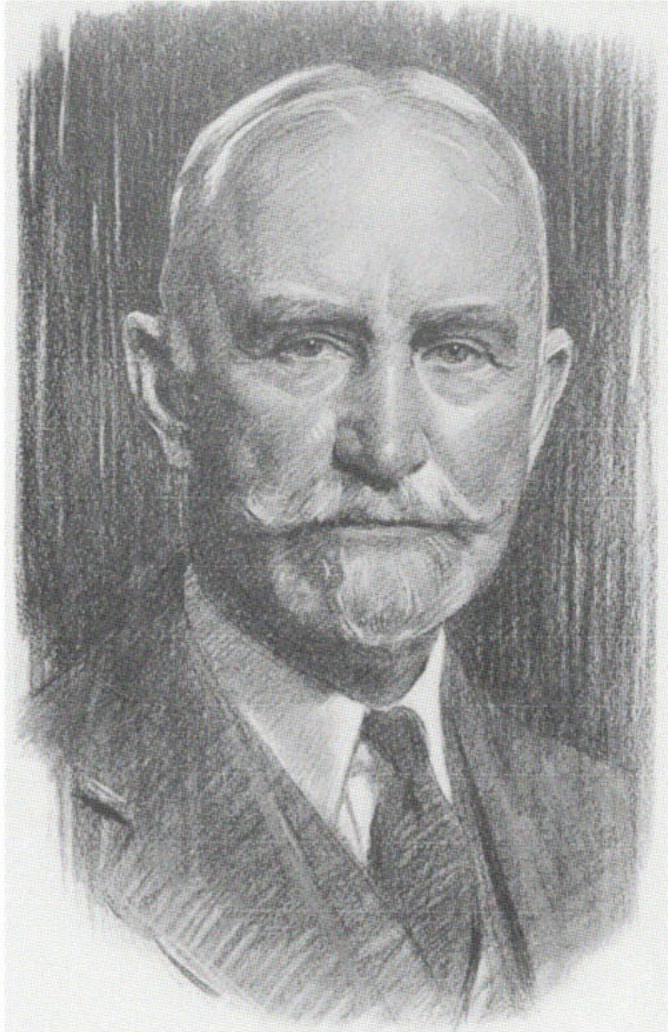


**Henry S. Pritchett**







HENRY S. PRITCHETT, 1928

# Henry S. Pritchett

## *A Biography*

By ABRAHAM FLEXNER

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## Preface

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THE WRITING of this biography of Henry S. Pritchett has been made possible by a grant from Carnegie Corporation of New York. The officers and the staff of the Corporation, the Carnegie Foundation for the Advancement of Teaching, and the Teachers Insurance and Annuity Association of America have assisted me by placing at my disposal correspondence, memoranda, reports, and other material, and in discussion of Dr. Pritchett's policies and activities; but while I have enjoyed frequent opportunities of conference with them, the sole responsibility for the biography rests with me. I am deeply indebted to Mrs. Pritchett who supplied me with an extremely helpful memoir of Dr. Pritchett's life in all its aspects, as well as with correspondence and a great variety of material bearing upon Dr. Pritchett's numerous activities. Mrs. Pritchett has read the manuscript and made many important suggestions. My grateful acknowledgments are also due to Mrs. Andrew Carnegie, to Chancellor John G. Bowman of the University of Pittsburgh, formerly secretary of the Carnegie Foundation, to Mrs. Berenice Morrison-Fuller, to the late Professor Otto Heller of Washington University, to the present director of the Coast and Geodetic Survey, Rear Admiral L. O. Colbert, to Major H. H. Hartley, librarian of the Survey, to Dr. St. George L. Sioussat, chief of the Division of Manuscripts of the Library of Congress, to Professor Alexander Bone of the Massachusetts Institute of Technology for an account of the Charles River Basin, to Dr. Robert Payne Bigelow for a very valuable account, charmingly written, of Pritchett's work and influence during his years as president of the Massachusetts Institute of Technology and to Mr. W. R. Boyd, of Cedar Rapids, Iowa, for a helpful memorandum, for his careful reading of the

proof, and for many talks about Pritchett, whom he knew well. To all those who have assisted me and to my secretary, Mrs. Esther S. Bailey, I owe thanks for coöperation, without which the book could not have been written.

ABRAHAM FLEXNER

*New York*

*February 26, 1943*

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## Ancestry

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THERE are few, if any, more fascinating historical stories than the tale which Theodore Roosevelt called *The Winning of the West*. The Revolutionary War was won by a population of two millions inhabiting a narrow strip of country between the Atlantic and the Alleghenies. The colonists lived and loved the simple life, enjoying, after they had surmounted the early trials and hardships involved in settlement, not only abundance of food (game, fish, grain, and vegetables), but also the freedom to read and think, which depended so largely on the spaciousness of their immediate environment. Living in the crowded quarters of great cities, we have nowadays at hand telephone, telegraph, radio, air mail, and motor car, which, whatever their usefulness, have destroyed forever the advantages of our forefathers. They saw one another rarely, but then in leisurely fashion; to meet one another they had to travel by rough roads and rest in primitive taverns. But they had time to talk, reflect, and discuss, for they read and reread few but good books, which they had abundant time to think over. These facts help to explain how a thinly scattered population, which if brought together today would form only one city of moderate size, produced not only a race of hardy pioneers, but an amazing group of thinkers in the fields of government, law, theology, and science. A nation of 130,000,000 today does not contain a group of social philosophers comparable in the breadth and depth of their thinking with the greatest of the American colonists and their immediate successors—Franklin, Washington, Hamilton, Adams, Madison, Marshall, Clay, and their contemporaries.

National independence brought, as one of its immediate consequences, increased population; and the increased population.

while not averse to small settlements, was still attached to the loneliness characteristic of eighteenth-century America. The movement towards the boundless West began when the ink was hardly dry on the newly adopted Constitution. No better examples can be found than are furnished by the careers of teachers like Carr Pritchett or statesmen like Henry Clay. Scarcely more than a boy, Clay made a reputation as lawyer and publicist in Virginia. Who, today, with the prospects and achievements of Clay at twenty-five, in the then leading state of the new Union, would have sacrificed all in order to start a new career in Kentucky, still "a dark and bloody ground"? But Clay sensed the future. He believed in the West, just as some of his friends believed in the South and endeavored to persuade him to join them in New Orleans. Discarding his promising future in his native state, he moved to Kentucky, soon achieved distinction as a lawyer, became a member of the State Assembly, which he swayed with his eloquence, within a few years was appointed to fill a vacancy in the United States Senate, preferred the more popular and boisterous House of Representatives, was elected to Congress, and was chosen Speaker on the very day on which he took his seat as Representative. We shall see that Carr Pritchett showed similar initiative.

The Louisiana Purchase and later the Mexican War converted our small republic into a continental democracy. From the beginning of the nineteenth century up to the Civil War, adventurous individuals, families, and religious groups pushed their way over mountains and rivers or through dense forests, seeking what their descendants show indications of avoiding, namely, solitude and space. Following the discovery of precious metals in the West and on the coast, the tide swelled in the years before and after 1850. Horace Greeley tersely expressed the prevailing mood in his familiar injunction, "Go West, young man, go West."

The steady stream of pioneers during the previous century led to the official closing of the frontier in 1890—about half a century ago—when Oklahoma was opened to settlement; but men

who were then in their prime still recall, or have left written accounts of, the conditions under which their families moved across the Alleghenies and in which they grew to manhood. Among them was the Pritchett family, which preferred the unknown hardships of the West to what seemed to them the comparatively ordered life of Virginia, in which they, their wives, and children began to feel crowded as the population of the state increased and social life became more settled.

There is little danger that Americans will be "softened" by the technological progress of the last half century; for facing a world crisis, as we do at this moment, our youth has shown itself gallantly ready for any sacrifice needed in order to preserve the American way of life. None the less, historians and biographers carry a heavy responsibility. They must preserve for posterity in detail the picture of the intrepid courage with which the great westward trek was carried out. The story of the Pritchett family is one of thousands that must never be permitted to grow old.

In his retirement after 1930, Henry S. Pritchett, the ablest and most distinguished of the Pritchett clan, occupied his leisure at Santa Barbara by writing an account of his early memories. The family, which had immigrated to Virginia in the early eighteenth century, was, as far back as it can be traced, Welsh in origin. It appears that originally the name was Apritchard—son of Richard—a name that was perhaps converted into Pritchett after the wars in France in the fourteenth century, when apparently many good old Welsh and English names were modified as a result of prolonged contact with the French people. The first Henry Pritchett in America was married in 1822 to a member of a numerous family, the Wallers, a family whose lineage has been traced by Colonel C. B. Bryant of Henry County, Virginia, to Aluned de Waller who died in 1183.\* Their eldest son,

\* Colonel Bryant compiled several hundred tables, listing between 6,000 and 8,000 persons, which at his death he left to Mr. E. P. Waller of Schenectady, New York. Communicating with Mr. Waller in 1934, Pritchett asks whether "the poet Waller was in this line of descent and also whether Sir Richard Waller, who, I believe, fought at the Battle of Agincourt, was of the family."

Carr Waller Pritchett, was born in September, 1823. Seventy years later Carr Pritchett recalled vividly the old Virginia plantation where the family lived from his fourth to his ninth year—the sagebrush pasture with its straggling sassafras trees, the poor galled fields where he followed his father's plow, the stockyard, stable, and granary, the apple tree under which they used to churn and under which he recollected seeing his Grandfather Pritchett kill a big moccasin snake, and the old spring, gushing cold and clear out of a cleft in solid rock.

Of Pritchett's mother we know less. In 1785, John Smith of Halifax County, Virginia, married Mary Byrd. Their granddaughter, Betty Susan Smith, married Pritchett's father. The frequent occurrence of the name Byrd in the Pritchett family suggests pride in their connection with the Byrd family.

The Virginians of that day showed the same general characteristics that were common to the other colonists, with certain differences due to climate and geographical situation. They were a hardy race, deeply attached to the soil, possessing slaves or not, according to the character of the land they cultivated, deeply religious, self-reliant, and eager to educate their children, who walked to and from the old red schoolhouse or, if fortunate, made the journey, sometimes perilous, on horseback.

The Pritchett family, closely knit, nevertheless exhibited the restlessness of the pioneer. While they loved proximity to the members of their own family and relatives, they viewed with misgiving the increase in the general population. Virginia, according to the ideas of the old settlers, was changing. Hence in 1835 Henry Pritchett, Carr's father, decided to move with his family, a few relatives, and his slaves—by no means numerous—to the newly created state of Missouri. They made their way amidst hardships of almost every variety through East Tennessee and Kentucky and at a point near the present town of Henderson, Kentucky, crossed the Ohio River on a horse ferry. Here they saw a miracle—the first steamboat they had ever beheld.

December was now close upon them, but with undaunted courage the family continued its journey through rain, snow, and mud. On Christmas Day they reached the eastern bank of the Mississippi, opposite St. Louis. There was no East St. Louis at that time. It was past sundown before the old horse boat could ferry the family and their belongings across the river, full of floating blocks of ice. They landed at the foot of Market Street and, trudging along, late at night reached the Irish Tavern where, after much entreating, the four Pritchett families were crowded into one room where they slept or rested on the floor.

Pushing on, they camped first at a point two miles north of the present town of Wentzville. Here they rented part of an old house and, losing no time, put in a crop. But Henry Pritchett the elder was not satisfied. He bought government land, built a log-house during the autumn of 1836, and in December, when the ground was covered with snow, moved into it. The primeval forest surrounded, but did not daunt, him. Henry and his oldest son Carr cleared a few acres, digging the ground with hoes. For two years their water supply was a small creek a quarter of a mile distant. Cloth was spun and woven at home from flax, cotton yarn, and wool. The first crop of tobacco brought thirty-two dollars, and Mother could buy a calico dress and a few necessaries for the children. They felt comfortable now; yet they lived in a single log cabin with a stick-and-dirt chimney and a ladder on which to ascend to the loft. They practiced economy, industry, self-denial, and good management. With characteristic impulse to a higher spiritual life, the family soon joined the church near by. Ministers visited their cabin, preached in the large room, and slept in the loft. Not a trace of self-pity can be found in the family records or memories of these years. The Pritchett family was made of sound, enduring, and aspiring material, as was the Pilgrim band who had settled New England, contending in the same spirit with similar obstacles. The children participated in all the work of the farm. Carr Pritchett was accustomed to take the corn

and wheat to the mill on horseback—a somewhat adventurous undertaking for a small boy.

The Missouri of that day—one of the many states carved out of the Louisiana which Jefferson had purchased—was an uneasy and restless state, which consisted of three parts. The river counties, dividing it like a great wedge, were slave-holding areas, with a proportion of one slave to three whites; in that district, slavery was profitable. In the northern and southwestern counties, the proportion was smaller—one slave to thirteen whites; slavery was unprofitable there. St. Louis, slave market though it was, contained one slave to forty whites. In the early days of the state's settlement, the moral issue was barely raised; slave or nonslave status turned upon the agricultural question: was the soil adapted to the cultivation of tobacco or cotton? Two thirds of its area contained relatively few slaves; the remaining third—agricultural in character, the bottom lands producing rich tobacco crops, the uplands mainly corn, wheat, and oats—contained most of the slaves. But the plantations were relatively small, and the number of slaves upon each was never large. Between the admission of Missouri as a state and the outbreak of the Civil War, the moral problem had become acute, and opinion as to the wrongness and folly of slavery had created a sharp issue, as in other border states. Meanwhile, during this entire period the population of the state continued proud of the fact that its origin bound it strongly to Virginia.

It is significant that from the first moment of settlement in Missouri the education of their children became a matter of deep concern to the pioneers. Carr Waller Pritchett, the father of Henry S. Pritchett, had, however, to shift for himself. Before leaving Virginia, his mother had been his first teacher; in 1833 he was sent for a brief period to school to “Old Jamie Williams, an Ironside Baptist deacon,” who lived three miles distant, but Carr, “who had to walk there and back every day, did not mind it in the least.” Only a few books were available in the household, the

Bible and *The Pilgrim's Progress* among them. From this Calvinistic household, Shakespeare was banned.

In 1842, after Carr had worked for his father until he was in his twentieth year, the sale of four slaves provided him with the funds necessary to attend a small college at St. Charles, twenty miles distant. The head, Dr. Fielding, had been educated at Trinity College, Dublin. It was a long leap from the poor little school in Carr's Virginia birthplace to the college at St. Charles, where he came under the influence and tutelage of a scholar who knew Latin, Greek, and elementary mathematics; up to this time Carr Pritchett had never even seen a Latin grammar, an algebra, or a book on geometry. At St. Charles he made rapid progress in Latin—so rapid that he began Greek on his own initiative and was soon admitted to the Greek class. "In a few weeks Dr. Fielding told him that he knew the Greek grammar better than the Senior Class soon to graduate." His own illness and the death of Dr. Fielding in 1844 suddenly brought his formal education to its close. As long as he lived, however, he was haunted by the knowledge that only the sale of human beings had enabled him to extend his education.

Other colleges there were none. He therefore started a school of his own. Out of its meager earnings he sent his sister Elizabeth to a school at Danville; returning, she joined her brother's teaching staff. A larger schoolhouse was built on the edge of their father's farm. The school itself, by that time well known as Pleasant Hill Academy, was soon so flourishing that it was difficult to find homes for "boarders." In course of time Carr Pritchett deserted education in order to enter the Methodist ministry. His home was a center of Methodist activity. For a while the school was carried on by his sisters; but as matrimony thinned the teaching staff, the school faded away.

In 1849, however, Carr Pritchett returned to his first love and resumed teaching at Danville, thirty miles distant. This step had for him momentous consequences, for at Danville he met another

emigré from the Old Dominion, the eldest daughter of Byrd Smith, who became his wife in the autumn of the same year. Carr Pritchett and his wife had a family of five children, of whom Henry Smith Pritchett, born April 16, 1857, was destined to be the most eminent. The mother, like her husband, was a person of remarkable qualities and abilities. To his last days her son Henry vividly recalled her extraordinary courage and attractiveness. He remembered, as he neared the end of his life, a trip he took with her shortly after the Civil War when he was still a young lad, to see her brother, a practicing physician in Amherst County, Virginia. It was the first meeting of brother and sister since the war, during which she had been a staunch Unionist, he an equally staunch Confederate. The boy never forgot the deep emotion of both on this occasion; but of bitterness or reproach there was none. The visit was otherwise memorable, for in Richmond the child was taken by his uncle to see the house of General Lee, who was then at Lexington fighting his last battle on his sick bed. In later years he showed a critical appreciation of Lee's greatness in character, magnanimity, piety, and soldierly qualities, but he saw clearly the inherent defects in Lee's thinking, for he once wrote, "If a state may secede as it pleases, there can never be an American nation." His mother died shortly after the visit to Virginia; Pritchett's reverence for her never faded. He had "gone to school" to her during the war; as her oldest son, child though he was, he felt himself her protector. But she always stood her own ground. She rose easily to two great emergencies: the first, when, leaving her with several small children, her husband went to Harvard to study astronomy and mathematics; the second, when during the Civil War her husband had to flee for his life. In his later years Pritchett remembered with affection and admiration his brave and idealistic parents, representatives of a type then as now the backbone of our democratic way of life.

Having exhausted the educational opportunities of the vicinity and progressed a considerable distance through his own efforts,

Pritchett's father became in 1851 professor of mathematics at Central College, situated at Fayette, Howard County. The entire teaching burden was borne by three men—Carr Pritchett and two associates, all Methodist ministers. For many years ministers continued to hold the inside track in the matter of teaching appointments, though after the Civil War they had as competitors the needy ex-Confederate brigadiers.

Town life was not congenial to the young professor. In 1856, therefore, he purchased with his school earnings a small farm some two miles distant. Love of the open country was obviously still strong within him. There was doubtless another motive. On a farm the few slaves whom he had inherited from his father could be happy and useful; their earnings augmented the slender income derived from teaching. Increased income, however slight, was not to be despised; for the Pritchett family was growing in numbers. On this farm Henry Smith Pritchett spent his first eleven years.

The following year Carr Pritchett did the extraordinary thing to which I have already alluded. Aware of his professional limitations, he left his family in the care of his wife and their few slaves in order to spend an entire year at Harvard in the study of astronomy and mathematics. Money was loaned to him by Mr. J. O. Swinney, a fellow townsman. He was received hospitably by William C. Bond, director of the Observatory, and assigned to superior men in higher mathematics and theoretical astronomy. There too he met Asaph Hall, destined to become famous twenty years later when he discovered the satellites of Mars, and Simon Newcomb, just at the outset of a brilliant career. In his old age, he wrote:

“I went to Cambridge in October, 1858—a poor, backward, timid, green man of thirty-five years. I left behind me my dear brave wife and two children, Lizzie, nearly six, and Henry about eighteen months of age. No one can ever know with what sadness I parted from them and took my seat in my road wagon, with

Stephen as driver, for Glasgow where I took the boat for Jefferson City whence I proceeded by train for St. Louis. Up to this time I had never seen a railroad."

With frequent changes he reached South Amboy, New Jersey, where a boat waited to carry the worn and dusty passengers to New York. He felt "little and forlorn" but bore up until, using the imperfect transportation facilities then available, he finally reached his destination. He wrote, "I cannot describe my emotions, as I came in sight of the buildings at Harvard. My heart almost failed me. Here was I, a grown-up man, more than a thousand miles away from home, where I knew not a single soul."

But he promptly plunged into work. He realized his defects but he was not for a moment discouraged. Invited to supper during the period when Donati's comet was "then in all its superb glory," he felt "ill at ease in such grand company and soon after supper went home." He was later in Cambridge "on the hundredth anniversary of Washington's assumption of the command of the American Army [July 4, 1875] under the old elm and recalled the poem written and read by James Russell Lowell, entitled *Virginia*."

To Carr Pritchett his Harvard experience was priceless. Beyond question it became later a decisive factor in determining the profession of his son Henry. Carr himself found his sphere of activity gradually shifting from mathematics to astronomy. Within two decades after his return to Missouri in 1859, he created and became director of an astronomical laboratory which, as his son reports, contained "one of the finest object glasses ever made by the famous telescope makers, Alvah Clark & Sons." The money was furnished by Miss Berenice Morrison, who still survives to enjoy the far-reaching results of her beneficence. It was a long and rocky road that Carr Pritchett had thus traveled since, already twenty years of age, he had resolved to get an education. Towards the end of his life, his son Henry thought his father's ambitions more vaulting than wise. Carr Pritchett had had at Harvard no experience in astronomical observation; he built an

observatory that would have kept three or four men busy. The school to which it was attached lacked security. Henry thought his father would have done better had his aim been less ambitious. In the middle 1930s, after the son had retired to Santa Barbara, he was able to evaluate his father's error of judgment, if such it was. Looking back, he regretted also the effect of the observatory on his own career. He had himself wished to study law, but because of the telescope he was committed almost inevitably to a career in astronomy. This, however, within a few years led to the broader educational interests that occupied the rest of his life. Was the telescope a lucky or an unlucky accident for him? One cannot judge positively, but there is reason to believe that his deep interest in astronomy gave his early life a turn of which higher education in America was later the beneficiary and could ill afford to have missed.

One may well pause amidst the comforts and assurance that we now enjoy to marvel at the heroic action of both Carr Pritchett and his wife. Who in these days of relative ease and plenty would leave a wife and two small children in a distant wilderness in order to make his way through hardship and deprivation over a distance of more than a thousand miles for the sole purpose of realizing an educational dream which he had cherished for years? Nor would it be easy to find a woman who would cheerfully bid her husband godspeed on an errand of this nature and take upon herself all the responsibilities connected with the upbringing of two children and the care of farm and slaves, without any assurance whatsoever that their fortunes would thereby be advanced. Looking back at his ancestry, the sacrifices that they made, the hardships they endured, the determination with which they clung to high ideals, one can all the more easily understand Henry's future career, marked by episodes calling forth in different form and under gentler conditions the qualities which his parents displayed at what proved to be the turning point of the family's career.

The Civil War soon wrought havoc with the scientific career

for which Carr Pritchett had made so great a sacrifice. Missouri was sharply divided, as were all the border states, between pro- and anti-slavery partisans. Neighbor was arrayed against neighbor, brother against brother, sometimes father against son. Carr Pritchett was the only Union man of his immediate family; his wife stood valiantly at his side, while two of her four brothers served in each army.

The first Confederate soldier Pritchett ever saw was his father's youngest brother, a boy of twenty-one. He afterwards wrote:

"I remember as if it were yesterday the morning he left our house to join Price's army. His determination to join the Confederates was one of the most bitter experiences through which my father went. I could not at that time understand the meaning of his tear-stained face, nor the sadness which seemed to cling about my Mother in all her movements. I only knew that it seemed to me very grand to have such a horse to ride away to the war. Just that day a week I watched my father turn the same bend as he rode away to bring back his brother's body. He had been shot through the heart at the first assault which took place next day."

It was a ghastly period. Irregular armed bands, known as guerillas or bushwhackers, ranged throughout the state, avoiding a pitched battle, but descending when least expected here or there in a mad and cruel search for food and loot. "Aunt Annie," the colored cook, used to say she could never get a batch of biscuits baked but the soldiers would appear and take them all. Men of character, like Francis Cockrell, later a prominent statesman, appealed vainly to the lawless bands to join one or the other army; he practiced his own doctrine and raised the Fifth Missouri Infantry which gained repute as one of the best fighting regiments of the Confederacy.

An uncompromising Unionist like Carr Pritchett found his position increasingly difficult; by the summer of 1864 it had become impossible. Henry Pritchett, then a lad of seven, remem-

bered to his last days how in the June of that year the blow fell. Twenty armed men appeared "to search the house" at Fayette. Carr Pritchett assured them they would find neither arms nor ammunition, but the marauders robbed the household of blankets, clothing, and other articles. Mrs. Pritchett was ordered to hold a lamp so that they might miss nothing of value. In so doing, she recognized one guerilla, a boy whom her husband had helped at school. She asked, "Aren't you ashamed to come to my house on such an errand?"

"No, I am not ashamed of anything."

An encounter near by between Union troops and guerillas proved to Carr Pritchett that his life was no longer safe. He left his home, and soon thereafter two revolver shots convinced his wife that he had been shot. Then for the first and only time in two tragic years Mrs. Pritchett lost control of herself; she was sure her husband had been murdered. At two o'clock next morning one of the blacks slipped quietly into the house to report that "Marse Carr, he saunt word not to worry, he all right and gwine to the Union camp." Carr made his way to Washington where, with the help of Professor Asaph Hall, he secured a post on the United States Sanitary Commission. His letters to his family disclose his constant solicitude for their welfare. From the office of the United States Sanitary Commission at 224 F Street he writes "at 3 P.M., March 24, 1865":

" . . . I am glad, Daughter, to see you took more pains in your writing. I have not had time to see whether the problems are right. You can do so well when you take pains and try. Remember the Lord holds us to a strict account for the improvement of our time and talents.

"When you visit your Cousins, remember you must not neglect your books entirely. I hope you will not grieve your dear mother by rudeness and romping. Help her to take care of your little brothers, and to instruct them in all that is good for them."

His anxiety for the well-being of his family never left him. Over