MY AMERICA STORY BOOK

American Progress – Part 1

A Compilation of Historical
Biographies for the Young Reader

Compiled by Marlene Peterson

Libraries of Hope

My America Story Book
Book Ten: American Progress – Part I

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Printed in the United States of America

Contents

Chapter 1

Eli Whitney

1765-1825

"There is hardly another instance in history where it is so easy to trace, in a very few years, results so tremendous following from a single invention by a single man."

— Edward Everett Hale.

Engraving of Eli Whitney from *Memoir of Eli Whitney, Esq.* by Denisen Olmsted, 1846

It is always interesting to see any one showing, when a boy, the qualities that lead to his future greatness as a man. Such a youth was Eli Whitney, the son of a Massachusetts farmer. Whitney was a mechanical genius. He loved to use tools, and to discover the laws of machines. There are many stories told of his ingenuity.

One bright Sunday morning the whole family were about to start for the meeting-house. Eli discovered that his father intended leaving his watch at home. For a long time the boy had coveted the chance of studying the workings of that watch. The opportunity was too good a one to be lost. So he begged permission to remain at home and, after the family had gone, he took the watch entirely apart.

It was not until every wheel, screw, and bright piece of metal lay before him that he thought of the consequences of what he had done. Was his father's watch a wreck? Could he ever put it to rights again? Desperately he set to work, and soon the watch appeared as good as ever. Mr. Whitney never knew what had happened until his son told him of his misdeed many years after.

This is only one of many stories that might be told of that clever farmer's boy. He made nails, bonnet pins, and walking sticks. He even made a fiddle. Many things that were too difficult or delicate for their owners to repair were brought to Eli Whitney.

At nineteen Eli decided that he needed a college education. To carry out his purpose he earned money during the next few years in any way that presented itself. Sometimes he taught school;

sometimes he was busy with tools, making or mending with his rare skill.

In May, 1789, at the age of twenty-four, he was able to enter Yale College. Even here he found an opportunity of turning his mechanical gift to account. One day a professor expressed regret at being unable to perform a certain experiment before the class. The necessary apparatus was broken, and must be sent to Europe for repairs. Whitney asked to examine it and soon delighted the professor by making it as good as new.

After he was graduated, he accepted a position to teach in the family of a Georgia planter. He journeyed to the South but found, to his dismay, that his post was already filled. Here he was, in an unknown state, alone, poor, and far from home. One friend, however, he had, and she was fortunately near at hand. This was Mrs. Greene, widow of General Nathanael Greene.

On hearing of his disappointment, Mrs. Greene sent for him and said: "You wish to study law. Very well, you can study in my home. Your room is your castle — you are most welcome."

For this southern hospitality the forlorn young man was most grateful. He lost no opportunity of proving his appreciation of Mrs. Greene's kindness. Hearing his hostess complain that her embroidery frame tore the delicate threads of her work, Whitney promptly made another that gave perfect satisfaction. Because of this act and because of the ease and neatness with which he mended broken toys for the children, Mrs. Greene came to have a high opinion of Whitney's dexterity.

One day a group of distinguished men came to visit the house. They were soldiers who had been officers under her late husband, General Greene. The conversation turned upon cotton. One and all, these men declared that if a way could be found of rapidly separating the cotton seeds from the cotton, they all would grow wealthy.

Have you ever examined the cotton boll? The silky white cotton bursting out from between the scaly, dead-brown leaves, is very beautiful to look at. If you examine the cotton more closely, you will find seeds scattered through the fleecy mass. Try to separate a seed from the cotton fiber. It clings like grim death. The apparently small task takes time. No cotton can be made into cloth until after it has been cleaned from the seed. In 1793 it took a man a whole day to prepare a pound of cotton for the mill. Because this process was so slow, very little could be made of cotton as a product.

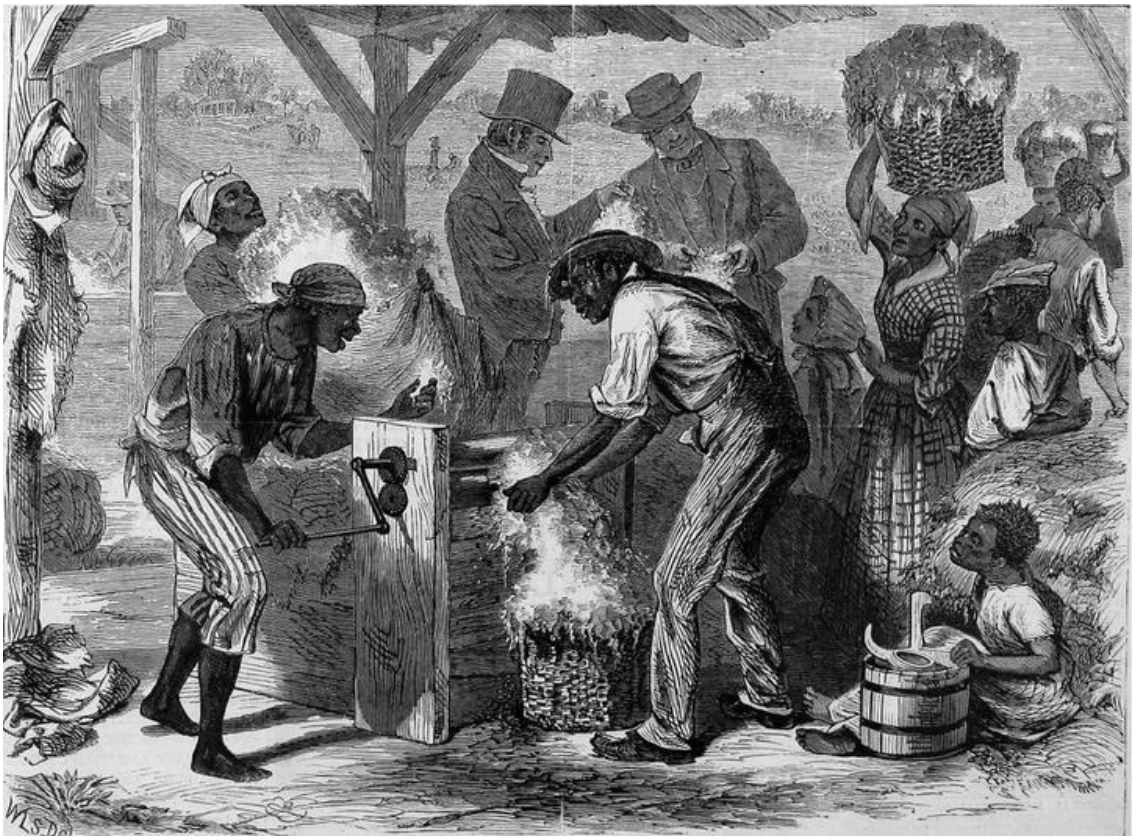
Mrs. Greene's guests knew that the rich, moist lowlands of the South with their genial sunshiny weather were adapted to raising mammoth crops of cotton. Thus it was that they exclaimed as one man: "If we only had a machine to do what now has to be done by hand! Such an article would make us all rich men."

"You must meet Mr. Whitney," exclaimed Mrs. Greene. "Perhaps he can help you. He can do anything! Only see this embroidery frame that he made for me!"

Thus warmly recommended, Whitney was summoned to the discussion. Soon after, he began experimenting.

Success crowned his efforts. In time he called his kind friend, Mrs. Greene, to see what he had done. The cotton gin was found to do the work of one thousand people. It could "gin" one thousand pounds in a day.

Once more Mrs. Greene gathered her friends to show them the marvelous labor-saving machine. They saw, and wondered, and went away to spread the amazing news. They knew that they had looked upon a great achievement, but no one realized the tremendous industrial revolution that was even then at their doors.



African Americans slaves using the First cotton-gin, drawn by William L. Sheppard, from *Harper's weekly,* 1869 Dec. 18, p. 813

And now a serious disaster occurred. Whitney's workshop was broken into and the precious model was stolen. It was a serious blow, but Whitney did not despair. He at once hurried north to forestall others from obtaining his patent rights.

He secured a patent, but it never brought him the great wealth that it should have done. The southern states evaded his just claims; southern planters grew rich at his expense; even the courts broke their agreements and declared judgment against him.

Eli Whitney did make a fortune, but not through the cotton gin. During the War of 1812 he manufactured rifles, and this enterprise was a success financially.

He died in New Haven, Connecticut, in 1825, at the age of sixty. As Dr. Hale said in the quotation at the head of this chapter, rarely have results so tremendous followed upon a single invention. Let us see exactly what the results were.

Up to 1793 there was practically no cotton industry. The chief crops were tobacco, rice, and indigo. With the appearance of the cotton gin, however, all these conditions were rapidly altered. Great areas of rich, moist lands were planted with cotton; great harvests were gathered under the warm southern sun; and great quantities of the fleecy wool were passed through the cotton gin and hurried to the mills at the North to be made into cloth. Formerly every one wore wool for clothing; now they began to wear cotton, because it was so cheap. In time a yard of calico cost but four cents. The South almost immediately began to compete with India and Egypt in supplying the world with

cotton.

Cotton manufactories flourished at the North and later in England. "Cotton is king" was the cry of the age, for "the spindles of both Old and New England waited on the bursting of the cotton bolls."

All this must seem to you a happy and prosperous state of affairs. But there is another side that is dark and foreboding. This is the influence of the cotton gin upon slavery. White men could not endure work in the low, moist fields under the hot sun. Consequently the labor of planting and harvesting was done by the negro. It was thought that the indolent black would not work unless he were a slave. Therefore slavery was looked upon, after the invention of the cotton gin, as desirable and necessary.

Before 1793 slavery had been dying out. The wisest men at the South, men like Washington and Jefferson, considered it a great evil. Still they thought the slaves would gradually be set free. The cotton gin altered this happy prospect.

Slaves, slaves, slaves, was the cry. Here are these broad acres to be tilled, and we have not enough "hands." So ships were hurried to Africa, and hundreds of blacks were brought to America to toil in the unhealthy cotton fields. The Constitution had forbidden any importation of slaves after 1808. But in the fifteen years between 1793 and 1808 the slave traders were exceedingly active.

Thus the great evil of slavery was fastened upon our country by the invention of the young New England teacher. Cotton planters at the South, cotton mill owners at the North, cotton spinners in England, all wished to keep the negro in slavery. It meant much money to them, and they shut their eyes to the question of right and wrong. The Civil War wiped out the great evil, but for over sixty years the canker was growing deep into the body politic.

Good and evil were wrapped together in the gift of Eli Whitney to his nation.

North side of monument at the grave of Eli Whitney in
Grove Street Cemetery, New Haven, Connecticut

Chapter 2

Robert Fulton

1756–1815

Robert Fulton, Circle of Thomas Sully

In Revolutionary times and, indeed, for many years after, the people's easiest method of getting about, and of carrying their goods from one point to another, was by boats. There were but few roads, and these were sometimes almost impassable on account of ruts and mud. Breakdowns and upsets were of everyday occurrence. Passengers had frequently to help the driver of the stage-coach pull the wheels out of the mud before a journey could be completed. Accidents by water were few and the going easier and swifter. Dutch sloops and schooners were used considerably on the larger streams in the East, and all kinds of small sailboats and canoes were also in use.

On the Western rivers the flatboat was the most familiar form of craft. It was merely a box, some fifty or more feet in length, and about sixteen feet wide, and was propelled by long poles. As it was used chiefly to carry produce, it was usually torn to pieces at the end of the journey, after its cargo of flour, pork, lumber, molasses, etc., had been sold. Hundreds of these boats went down the Ohio and Mississippi Rivers every year, and even in this day an occasional one may be seen.

The favorite passenger craft was the keelboat. It plied up and down the rivers with more or less regularity, being pushed up stream with long poles. Where the current was too strong for this, the boatmen went ashore and hauled the craft along by ropes. Small wonder, then, that one of the problems of the day was to invent a boat which could move along with swiftness and ease, and which should not be dependent on the ever-varying wind for its speed.

James Watt, a Scotchman, had so improved the steam-engine that people began to hope that

steam might be utilized to work for man. Naturally the thoughts of many inventors turned toward it. Why could not some sort of machinery be devised for applying the power of the steam-engine to the movement of boats?

One ingenious Englishman tried to run a boat by making the engine push through the water a device shaped somewhat like a duck's foot. But it was not a success. In 1730 another Englishman, Dr. John Allen, tried to run a boat by taking in water through an opening in the bow of his boat, and then driving it out at the stern with so much force as to push the boat forward. This, too, was a failure. In 1786 John Fitch, an American, built a steamboat and launched it on the Delaware. His boat was moved by means of a row of engine-worked paddles, arranged along its sides. For more than three months it plied up and down the river, but it moved so slowly that few passengers cared to ride in it.

Illustration from *Story of one hundred years…*
by Daniel B. Shepp, circa 1900

Fitch grew ragged and poor, and at last gave up the trips. Three years later, another American, James Rumsey by name, built a steamboat: but, like Fitch's boat, it never became practicable.

Time passed. One inventor after another experimented with the steamboat and failed. People began to think that such a boat could not be built. But there were two Americans, over in Paris, who were not yet ready to give up. These were Chancellor Livingston, American Minister to France, and Robert Fulton, a young inventor. Both were much interested in steam navigation, and they formed a partnership for its promotion. Livingston was to furnish money and advice, and Fulton was to do the work.

Robert Fulton was born in Chester County, Pennsylvania, in 1765. His father was an Irish tailor. Young Robert, like many other boys, did not care to learn his father's trade. Neither was he especially interested in books. He was a born inventor, and also had considerable talent as an artist. At the age of seventeen he was a miniature painter in Philadelphia, and succeeded so well that in four years' time he was able to buy a little farm for his mother. After seeing her comfortably settled, he sailed for Europe to study art under the direction of Benjamin West.

But his inventive genius continually interfered with his studies. Every now and then he would

abandon art and turn out some mechanical invention. One was a submarine torpedo, which he tried in vain to persuade Napoleon to buy. After entering into partnership with Livingston, he went over to England to see a steamboat which William Symington, a Scotchman, had invented. This steamboat had a side-wheel, and was fashioned after an idea which Fulton had already in mind. It could make five miles per hour.

Young Fulton was certain that he could improve on Symington's model, and went back to France full of enthusiasm. The firm immediately built a boat which they launched on the river Seine; but it broke in pieces when the engines were placed on board. Fulton proved his mettle by immediately building another boat. He was not a man to be disheartened by one failure. The second

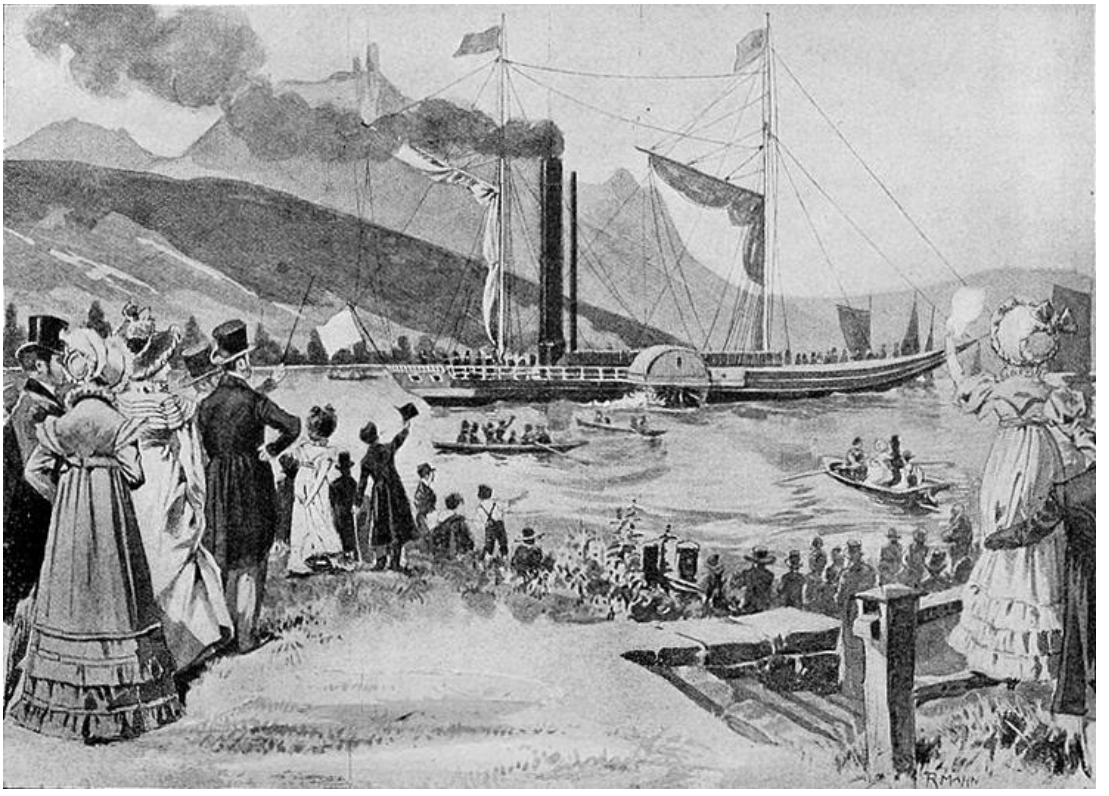


Illustration from *Story of one hundred years…*
by Daniel B. Shepp, circa 1900

venture was more successful. He made a trial trip in sight of a large crowd of Parisians. The great Napoleon was deeply interested in the boat. "It is capable of changing the face of the world!" he exclaimed. Notwithstanding all this, the two Americans decided to return to their own country, where the need for steamboats was much greater.

One of the first things to be done was to get the best engine which could be built. Fulton immediately sent to James Watt for an engine, which was to be fashioned according to his own plans. While it was being made, he set about building a steamboat at New York. The *Clermont* was the name he gave his model. It was the first sidewheel steamboat built in America. It did not appeal to the people at large. They laughed at it and styled it "Fulton's Folly"; but they assembled in large numbers when he was finally ready, one day in August, 1807, to watch it make a trial trip. It was an

anxious moment to Fulton, as everyone was sure he would fail; and, indeed, when the signal was given, the boat moved for a short distance, then it stopped and became immovable. But Fulton hurried below and soon discovered the cause of the trouble. This being easily remedied, the boat went on.

The *Clermont* made the distance from New York to Albany (150 miles) in thirty-two hours and came back successfully. Still many pronounced it a failure, and declared that it could not be made to repeat the trip. But it did; and not once, but many times. Then the usefulness of the invention was, at last, appreciated. In 1808, a line of steamboats went regularly up and down the Hudson, and others were put in operation in various parts of the country.

Portrait statue of Fulton along the balustrade.
Library of Congress Thomas Jefferson Building, Washington, D.C.

At first the steamboat created terror and consternation all along its way. For in those days newspapers were scarce and news traveled slowly. Few knew of its existence until the horrid monster "marched by on the tides, lighting its path by the fires which it vomited." This was especially true in the sparsely settled country along the Ohio and the Mississippi, where many amusing stories are told of the fear it inspired. Some of the vessels were run ashore to escape the terrible creature. The passengers and crews on board ships which could not get out of the way hid themselves in the hold to escape the dreadful doom which threatened them.

Robert Fulton died in New York, in 1815. He lived long enough, however, to see the beginning of the prophecy which Napoleon had made concerning his invention. Hundreds of steamboats were already in use in our country alone. Today they are numbered by the thousands. Not just like Fulton's model, to be sure; but built along the same general plan as that which he in turn had copied from Symington's invention. But neither man could ever in his wildest dreams have imagined the great ocean steamers and battleships that have grown out of their seemingly insignificant little boats. In 1909 New York celebrated with a magnificent pageant the centennial of the first trip of the little Clermont, which was the real beginning of steam navigation, and the tercentennial of the discovery of the Hudson River by Henry Hudson.

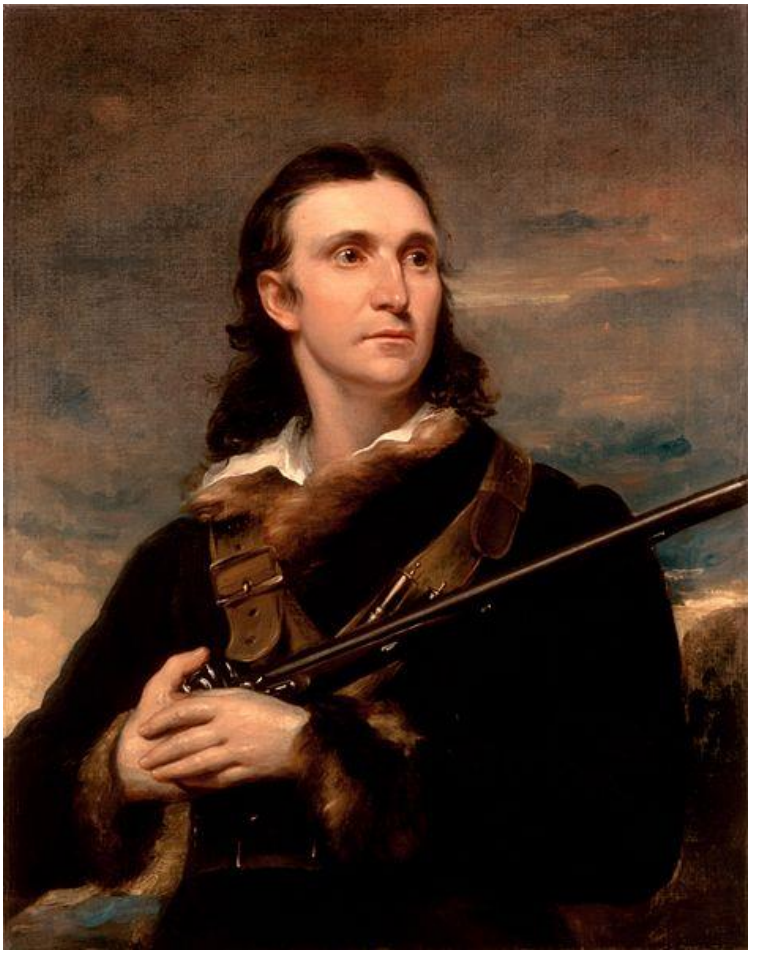
Chapter 3

John James Audubon

1785-1851

Have you ever happened to see a book that cost a thousand dollars?

A man who loved birds and knew a great deal about them drew pictures of all the kinds to be found in our country, calling these drawings, when they were colored and bound together *The Birds of North America*. It took four volumes to hold all these pictures, and each one of these books costs a thousand dollars. There were only seventy-five or eighty of these sets of bird books made, but you can see them in the Boston Public Library, the Lenox and Astor libraries in New York city, and at several colleges and private homes. Each one of these books is more than three feet long and a little over two feet wide, and is so heavy that it takes two strong men to lift it on to a rack when someone wants to look at the pictures. If you should look through all four books, you would see more than a thousand kinds of birds, all drawn as big as life, and each one colored like the bird itself.



John James Audubon, John Syme

You may be sure it took the maker of these books many, many years to travel all over the United States to find such a number of birds. The man's name was John James Audubon. He slept in woods, waded through marshes and swamps, tramped hundreds of miles, and suffered many hardships before he could learn the colors and habits of so many birds. He always said his love for birds began when his pet parrot was killed.

It happened this way.

One morning when John James was about four years old and his nurse

was giving him his breakfast, the little parrot Mignonne, who said a lot of words as plainly as a child, asked for some bread and milk. A tame monkey who was in the room happened to be angry and sulking over something. He sprang at Mignonne, who screamed for help. Little John James shouted too, and begged his nurse to save the bird, but before any one could stop the ugly monkey's blows, the parrot was dead.

The monkey was always kept chained after that, and John James buried his parrot in the garden and trimmed the grave with shrubs and flowering plants. But he missed his pet and so roamed through the woods adjoining his father's estate, watching the birds that flew through them. By and by he did not care for anything so much as trying to make pictures of these birds, listening to their songs, finding what kind of nests they built, and at what time of year they flew north or south.

Goshawk, Stanley Hawk,
John James Audubon

John James lived in Nantes, France, when he was a small boy, although he was born in Louisiana. His father was a wealthy French gentleman, an officer in the French navy, and was much in America, so that John James was first in France and then in America until he was about twenty-five, at which time he settled in his native country for good. Few men have loved these United States better than he.

John James did not care much for school. Figures tired his head. He loved music, drawing, and dancing. His father was away from home most of the time, and his pretty, young stepmother let the boy do quite as he pleased. She loved him dearly, and as he liked to roam through the country with boys of his age, she would pack luncheon baskets day after day for him, and when he came back at dusk, with the same baskets filled with birds' eggs, strange flowers, and all sorts of curiosities, she would sit down beside him and look them over, as interested as could be.

Some years later, when John James's father put him in charge of a large farm near Philadelphia, the young man bought some fine horses, some well-trained dogs, and spent long summer days in hunting and fishing. He also got many breeds of fowl. It is a wonder that with all the leisure hours he had, and the large amount of spending money his father allowed him, he did not get into bad

Painting depicting John James Audubon (drawing a bird),
Thomas Jefferson Building, Library of Congress, Washington D.C.

habits, but young Audubon ate mostly fruit and vegetables, never touched liquor, and chose good companions. He did like fine clothes. I expect the handsome fellow made a pretty picture as he dashed by on his spirited black horse, in his satin breeches, silk stockings and pumps, and the fine, ruffled shirts which he had sent over from France.

Anyway, a sweet young girl, Lucy Bakewell, lost her heart to him. Only as she was very young, her parents said she must not yet be married. And while he was waiting for her, he fixed over his house, and with a friend, Mr. Rozier, and a good-natured housekeeper, lived a simple, country life. You would have enjoyed a visit to him about this time. He turned the lower floor into a sort of museum. The walls were festooned with birds' eggs, which had been blown out and strung on thread. There were stuffed squirrels, opossums, and racoons; and paintings of gorgeous colored birds hung everywhere. Audubon had great skill in training animals and one dog, Zephyr, did wonderful tricks.

When Audubon and Lucy married, they went to Kentucky, where he and his friend Rozier opened a store. But Rozier did most of the store work, as Audubon was apt to wander off to the woods, for he had already decided to make this book about birds. His mind was not on his business, as you can see when I tell you that one day he mailed a letter with eight thousand dollars in it and never sealed it! The only part of the business he enjoyed were the trips to New York and Philadelphia to buy goods. These goods were carried on the backs of pack horses, and a good part of the journeys led through forests. He lost the horses for a whole day once, because he heard a song-bird that was new to him, and as he followed the sound of the bird so as to get a sight of it, he forgot all about the pack horses and the goods.

By and by his best friends said he acted like a crazy man. Only his wife and family stood by him.

Finally when his money was gone, and there were two children growing up, things looked rather desperate. But Lucy, his wife, said: "You are a genius, and you know more about birds than anyone living. I am sure all you need is time to show the world how clever you are. I will earn money while you study and paint!"

So Audubon traveled to seek out the haunts of still more birds, while Lucy went as governess in rich families, or opened private schools where she could teach her own two boys as well as others. She earned a great deal of money, and when he had made all his pictures and was ready to publish the books, she had nearly enough to pay the expense, and gave it to him.

"No," he said, "I am going to earn part of this myself. I will open a dancing class." He had danced beautifully ever since he was a child and could not understand how people could be so awkward and stupid as his class of sixty Kentuckians proved to be. In their first lesson he broke his bow and almost ruined his beautiful violin in his excitement and temper. "Why, watch me," he cried, and he danced to his own music so charmingly that the class clapped their hands and said they would do their best to copy him. By and by they did better, and before he left them, they quite satisfied him. And what was fortunate for him, they had paid him two thousand dollars. With this and Lucy's earnings, he went to England and had the famous drawings published. When they were done, he exhibited them at the Royal Institute, charging admission, and earned many pounds more.

Audubon was a lovable, courteous man, never too poor to help others, very modest and gracious. He adored his wife, and as his books (he wrote many volumes of his travels, which I hope you will read some day) brought in quite a fortune, the two, with their sons, and their grandchildren, spent their last days in great comfort, on a fine estate on the Hudson River.

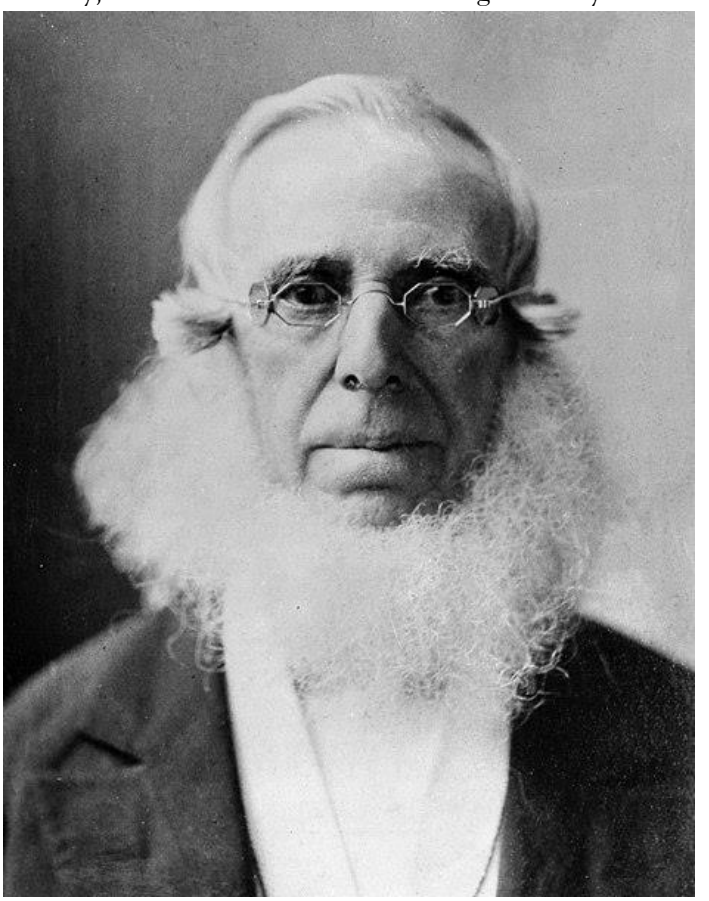
Chapter 4

Peter Cooper

1791-1883

One dark night, in the year 1791, a humble hat-maker walked down Broadway, New York, in deepest thought. A baby boy had recently been born to him, and he felt that, somehow, the child was destined, to do a great good in the world. He ought, therefore, to have a name somewhat out of the ordinary. What should it be? Suddenly it seemed as though a voice said to him clearly and distinctly: "Call him Peter!"

So the little babe was christened Peter Cooper. As soon as he grew old enough to understand, his parents told him how he had received his name, and the great hopes they had for him. Possibly their faith and desires acted as a stimulus to the boy, for he was studious and thoughtful beyond his years, and his little brown hands were never idle. "He was always doing the small deeds that are the beginning of the great ones."



Photograph of Peter Cooper

His father and his grandfather, General John Campbell, had both fought gallantly in the Revolution, and little Peter never tired of hearing them tell of deeds of valor. No doubt these stories first fired him with the desire to do something useful. He had come into the world on the wings of a new country, as it were. "He was to see a newborn nation grow into strength and greatness. A thousand miracles of progress were to transpire, and the boy was to be a part of it all."

While Peter was still a very small child, his family removed to Peekskill-on-the-Hudson, then an old Dutch village such as one finds in the pages of Washington Irving. There his father built a store and a church. The store was not a very profitable venture, and traveling preachers visited the little church and faithful John Cooper's

table so frequently "that what small profit there was seems to have been eaten up by these hungry gentlemen. They were a rather solemn-looking lot; but there was a supreme faith in God and His beneficence in their hearts, and Peter caught some of the good seed they were scattering, and his early sense of religion never left him."

The Cooper family was a large one. There were six children besides Peter, and the tired, overworked mother often pressed him into service about the house. The lad used cheerfully to cook, wash, make beds, sweep, or do anything to help along. One of his first useful inventions was a device for washing and pounding soiled clothes. His mother was delighted. She had not yet lost her faith that Peter was a wonder child. If he could do one remarkable thing, he could do another. And so it proved. Peter's next triumph was a pair of shoes! In the eyes of the Coopers there was not a greater hero along the Hudson. One pair of shoes meant shoes for seven Cooper children — an item of great importance in those days!

Finally the time came when Peter was no longer needed at home. He was a bright, hearty lad of seventeen; straight and strong, with a sturdiness which he had inherited from his father. So the youth set out to make his own way in the world. He went to New York, for he felt that in the heart of the rapidly growing city lay his chance to prove there was something in his name of Peter after all.

Shortly after arriving in the city Peter apprenticed himself to John Woodward, a coach-builder, at the corner of Broadway and Chambers Street. For his work he was to receive twenty-five dollars a year and board with his master, who was to teach him the trade of carriage-making.

The life of apprentices in those days was anything but enviable. Their masters often proved hard and treated them little better than brutes. As a class, they had no social standing. There were no night schools, no reading-rooms, no free libraries, no free lectures open to young apprentices and mechanics. The world was barred to them, and the thought stirred young Cooper to his very soul. He had, however, been very fortunate in the choice of a master. Mr. Woodward was most kind and considerate, and his young apprentice repaid him by being both diligent and capable, trying eagerly to learn all about the trade.

King's College was not far from the coach shop. Young Cooper often paused in his work to watch the sons of the rich run across College Square. They knew things he did not. The best lectures, the best music, the best libraries, the best colleges, were everywhere ready to welcome and aid them. But there was no place for the greasy mechanic and apprentice. More and more the iron of this fact pierced the young man's soul. He determined that he would one day break this "galling yoke of bondage," and found a great school which should be free to the poor and friendless alike. But he formed no definite plan for doing this. He only knew that he must patiently work and strive until he had, in some way, managed to amass money enough to make himself a power.

So he worked and thought, and grew stronger in his purpose day by day. He made several inventions for the betterment of his trade, among them a contrivance for mortising hubs, which had hitherto been done by hand. Finally the end of his four years of servitude drew nigh. His grateful employer kindly offered to set him up in business. The young inventor did not accept, because, as he said in later life, he feared he might fail and be imprisoned for debt!

Instead, he went to Hempstead, Long Island, to visit his brother. Here there was a factory which made machines for shearing cloth. Young Cooper worked there for three years, earning nine dollars

Daguerreotype of Peter Cooper

a week. This was considered an excellent salary in those days, when a dollar would buy about five times what it will now. He lived very carefully and put away a large part of his wages each week. At the end of three years he had saved enough to patent his own device for shearing cloth. The first purchaser of a county-right for the machine was Matthew Vassar of Poughkeepsie, who afterward founded Vassar College for the higher education of women. He paid the young inventor five hundred dollars. This was Cooper's first real start in life, and the foundation of the fortune he hoped one day to win. The manufacture and sale of the Cooper shearing machine became a prosperous business, and the young inventor was very happy. So he worked and waited; toiling, unaided, up the steep path of learning in the quiet of his own room at night. Though his life purpose was to make it easy for others to obtain an education, Mr. Cooper never talked of learning and seldom made any mention of books, even after he had accomplished his life mission. It is uncertain how much he acquired in his broken studies, but he conversed on many subjects, and his language was always the best.

On December 18, 1813, young Cooper married Sarah Bedell, a charming young lady of Huguenot descent, and set up housekeeping at Hempstead. The union proved a happy one. From the first Mrs. Cooper was in sympathy with her husband's secret purpose, and warmly seconded his efforts. He often lovingly referred to her as his guardian angel. Storm clouds never visited the Cooper home, for the master possessed a sweetness of nature seldom found with the inventive faculty. When he had become a white-haired old patriarch, his face was so stamped with serenity and kindness that one of his biographers says: "Some who saw old Peter Cooper, and studied him at the age of ninety-three, must have thought of the faraway little boy that he once was."

When the march of time and progress sounded the death knell of Cooper's shearing machine, he moved his family to New York and went into the grocery business. The venture was a fair success, but profits were slow, so he bought a glue factory.

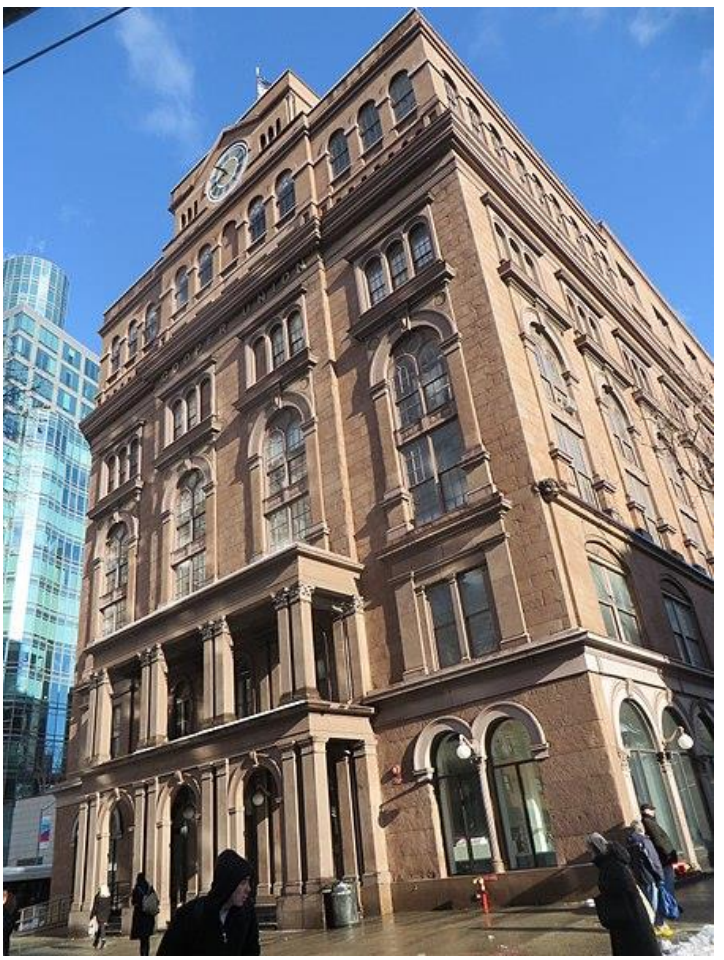
Mr. Cooper knew nothing about the manufacture of glue; but he knew what a good glue ought to be, and he made up his mind that he would make the best glue that could possibly be made. Soon shopmen and laborers began to talk of the excellence of Cooper's glue, and there was a ready market for all he could produce.

Gradually hard work, sound, honest business methods, and living always below his means, brought success. His business field widened. He became interested in iron, and made many

inventions, not the least of which was a Tom Thumb locomotive, the first railroad locomotive made in America. His rolling-mills and glue factory gave employment to thousands of men. The name of Peter Cooper was known far and wide. The Iron and Steel Institute of Great Britain bestowed on him the Bessemer gold medal. He had become a millionaire! Now, indeed, he was ready for the realization of his purpose, and he knew just what he wanted to do.

Years before he had heard a gentleman who had just returned from Paris describe the school of arts and trades founded in that city by the First Napoleon. He was deeply impressed when told of the hundreds of poor young men who lived on a crust of bread a day in order to get the benefit of this school, which they could attend without charge. Just such an institution had long existed in vague form in his own brain. He asked many questions, and then and there determined to build an institute which should be dedicated forever "to the union of art and science, and their application to the useful purposes of life."

He looked about at once for a suitable location for such an institution. There was a lot for sale at the junction of Third and Fourth Avenues. Mr. Cooper bought it. At intervals, as he had the money, he added to his purchase until he owned the whole block. Then, in 1854, he laid the foundation of that noble structure, the Cooper Union. The building, which stands today practically unchanged, cost somewhat more than half a million dollars. It has a library of more than twenty thousand volumes, and the best papers and magazines of the world are on its tables. Fifteen hundred persons daily visit the comfortable reading rooms. The great hall, with seating capacity for two thousand people, is thrown open on Saturday nights. Here free lectures are given on a variety of subjects interesting to the working classes.

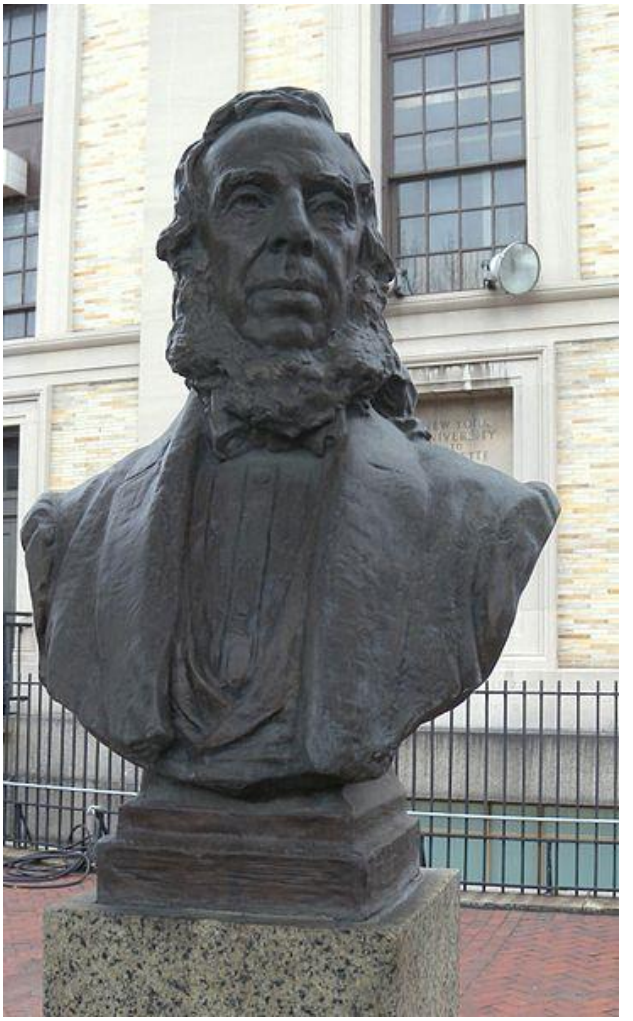


Cooper Union, New York, New York

In its art schools the very best instructors are employed to teach engineering, drafting, drawing, chemistry, natural philosophy, painting, telegraphy, etc. Day and night this great institution, which is maintained at a cost of more than fifty thousand dollars per year, opens wide its doors to all who care to enter. Here hundreds and thousands of poor boys and girls of all classes, creeds, and races have received the benefit of the labors of a little country lad who was himself once a slave of toil and knew the pathos of the cry, "Oh, if I only had an education!"

Probably no happier man ever walked the streets of New York than was Mr. Cooper when he saw his cherished plans in successful operation. It was his delight to drive to the institute daily and witness the earnest students hard at work, making the most of their opportunities. No one was so humble as to be beneath his notice, and many a stranded student from the backwoods received food as well as education at the hands of "Grandpa Cooper."

He was especially interested in poor girls and struggling women who had no means of support. He delighted to bring such to his school, where they might learn how to be self-supporting. It was his creed that there would be fewer broken-hearted women in the world if each one knew some useful occupation which would make her self-supporting and therefore independent. "Too many girls marry for a home," said he. "Too many mothers struggle along trying to keep the breath of life in themselves and their little ones by doing heavy washings for which they are wholly unfit, and which soon bring them to an untimely grave." These ever found his ready aid, and not unfrequently he supported a whole brood while the mother learned some useful and congenial trade.



Bust of Peter Cooper, Bronx Community College Hall of Great Americans, New York, New York.

Every little waif in the streets of New York knew Good Peter Cooper. His name was endeared in countless homes. He was the best loved man in America. Wherever Peter Cooper appeared in his little old-fashioned carriage, cabmen and carters of every description would respectfully touch their caps and give him the right of way.

And that carriage! It stands today at Cooper Union, in the center of the hall which fronts on the old Bowery road. "It is a funny, old-fashioned affair, made in the time when gentlemen wore broadcloth and nankeens, and ladies rode abroad in wide flowered prints and poke bonnets. There is nothing very remarkable about its appearance." But what an eloquent story it has to tell! Peter Cooper rode in it while at his daily toil of making a fortune large enough to build Cooper Union! Carriages have been fashioned for many centuries, and men have used them to gratify all the emotions of the human mind; but it is seldom that the owner of a carriage has, through its use, made his name and deeds immortal!

Peter Cooper's great soul passed from the earth on April 4, 1883. On the day that his body was borne down Broadway a so-called miracle occurred. The great noisy avenue was as still and silent

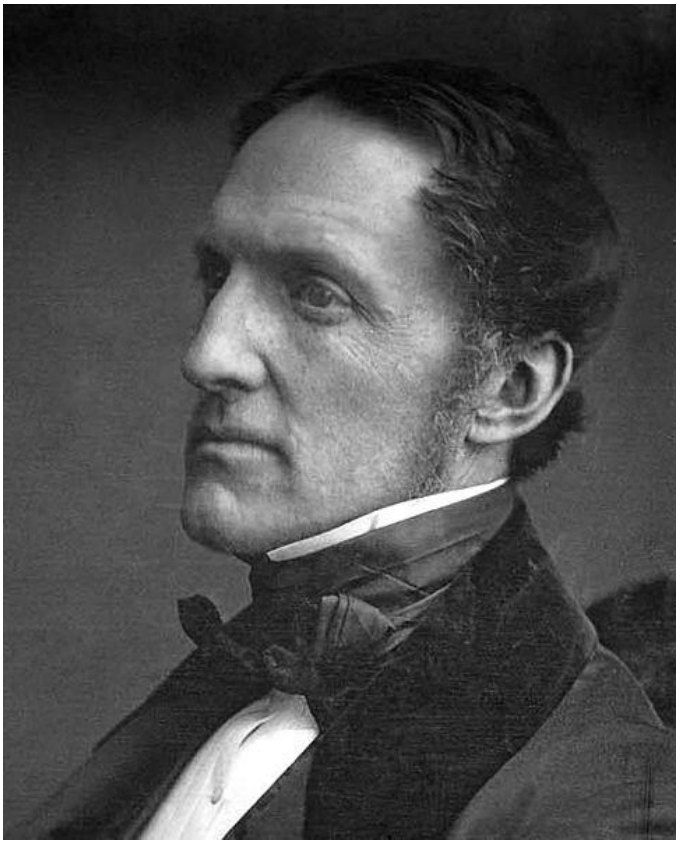
as the grave which was soon to hold the loved remains of the people's dearest friend; not a person or a vehicle of any description marred the broad street. It was a beautiful tribute to the quiet, peace-loving, kindly man, whose life was, in such full measure, what a noble life should be!

Peter Cooper made his name immortal. "It will go down the centuries with a bright halo of unfading glory." The secret of his success was in having a noble purpose toward which he bent every energy; never swerving to the right or to the left, but ever pressing on eagerly and hopefully toward the goal. He lived for something. He did good and left behind him a monument of virtue which the storms of time can never destroy.

Chapter 5

William Hickling Prescott

1796–1859



Photograph of William Hickling Prescott

George Washington was a daring soldier himself and of course noticed how other men behaved on a battlefield. He liked a man who had plenty of courage — a real hero. There was a certain Colonel Prescott who fought at the battle of Bunker Hill whom Washington admired. He always spoke of him as Prescott, the brave.

Colonel Prescott had a grandson, William Hickling Prescott, who was never in a battle in his life and did not know the least thing about soldiering, but he deserved the same title his grandfather won — "Prescott, the brave" — as you will see.

William was born in Salem, in 1796. His father, a lawyer who afterwards became a famous judge, was a rich man, so William and his younger brothers and sisters had a beautiful home; and as his mother was a laughing, joyous woman, the little Prescotts had a happy childhood.

William was much petted by his parents. His mother taught him to read and write, but when he was very small he went to school to a lady who loved her pupils so well that she never allowed people to call her a school-teacher — she said she was a school-mother. Between his pleasant study hours with Miss Higginson, this school-mother, and his merry play hours at home, the days were never quite long enough for William.

When he was seven, he was placed in a private school taught by Master Knapp. And there he was asked to study rather more than he liked. He had loved story books almost from his cradle, and what he read was very real to him. Sometimes, when he was only a tiny boy, he felt so sure the goblins, fairies, and giants of which he had been reading might suddenly appear, unless his mother

were at hand to banish them, that he would follow her from room to room, holding on to her gown. Still these books were much nicer, he thought, than the ones Master Knapp told him to study. He was full of fun and frolic and took all Master Knapp's rebukes so cheerfully that the teacher could not get angry with him. His schoolmates adored him. Even if he did play a good many jokes on them, they were not mean, vicious jokes. He had altogether too kind a heart to hurt a person or to say unkind things. He did manage to get his history lessons, and he liked to read lives of great men. But he did not study any great amount until after his father moved to Boston, and William began to fit himself for Harvard College. He was proud of his father and fancied that he would like to be a lawyer like him.

Young Prescott had been in college but a short time when, one night at dinner, a rough, rude student hurled a hard crust of bread across the table, not aiming at any one in particular. But it hit Prescott in his left eye and destroyed the sight in it. The poor fellow fell to the floor as if he were dead and was very ill for weeks. Then it was that he began to earn his title of Prescott, the brave. He did not complain, he did not say: "Well, of course, I shall never try to do anything now that I have only one eye to use." Instead, he kept up his spirits and finished his course at Harvard. Everybody talked of his pluck. He was asked to be orator of his class, and he wrote for graduation day a Latin poem on *Hope,* which he recited with such a happy face and manner that the people clapped their hands and cheered. His parents were so pleased that William could finish his college work, in spite of his accident, and that he could keep right on being a rollicking, laughing boy, that they spread a great tent on the college grounds and feasted five hundred friends who had come to see William graduate. Then William went on a wonderful visit to the Azores. His mother's brother, Thomas Hickling, was United States Consul at St. Michael. This uncle had married a Portuguese lady, and there was a large family of cousins to entertain the New England boy. Mr. Hickling had a big country house and a lot of spirited horses. As William drove over the lovely island, he used to laugh at the funny little burros the working people rode and the strange costumes they wore. Of course, he found St. Michael a different looking place from Boston, with its brick, or sober-colored houses. At the Azores, you know, everything is bright and colorful. A salmon-pink castle stands next to a

The poor fellow fell to the floor as if he were dead,
illustration by Mary Stoyell Stimpson, 1915

square, box-like house, painted yellow; a blue villa and a buff villa probably adjoin dainty green and lavender cottages, and occasionally a fancy little dwelling, all towers and balconies, will be painted cherry red. Then the mountain peaks behind all these houses are vivid green. So William felt almost as if he were in fairyland.

When he had been looking at these beautiful things about six weeks, he found suddenly, one morning, that they had turned black. He could not see a bit with his well eye! A doctor was sent for and he said: "A perfectly dark room for you, William Prescott, for three months, and only enough food to keep you alive!" In all the ninety-five days the doctor kept him shut in, William was never heard to utter one word of complaint. His cousins sat with him a good deal (thankful that he could not see them cry), and he told them funny stories, sang songs, and paced back and forth for exercise, with his elbows held way out at his sides to avoid running into the furniture. He finally saw again but had to be very careful of that one useful eye all the rest of his life. The minute he used it too much, the blindness would come on again.

As studying law was out of the question for him, he thought he would write histories. He had already learned a good deal about the different countries but knew most about Spain. So he set about learning all he could of that country as far back as the days of Christopher Columbus. Of course, this brought in King Ferdinand and Queen Isabella (you remember she offered to sell her jewels to help Columbus) and stories of Peru and Mexico, so that William Prescott spent most of his life gathering facts together about the Spanish people. And the histories of them he wrote (eight large books) sound almost like story books; when you read them you seem to see the banquet halls, the queens followed by their pages and ladies-in-waiting, the priests chanting hymns in their monasteries, and the Mexican generals in their showy uniforms.

Think how hard it was for William Prescott to make these histories. He dared use his eye but a few hours a week. So he hired people to read to him, to go to libraries to look at old papers and letters, and to copy the notes he made on a queer machine. You can see this instrument that he contrived at the Massachusetts Historical Society. Some pieces of wood held sheets of paper in place; other strips of wood kept the pencil going in fairly straight lines. But sometimes when he used this at night, or when his eye was bandaged, he would forget to put in a fresh sheet of paper and would scribble ahead for a long time, writing the same lines over and across until his secretaries would have a hard time to find out what he meant. He did not want to waste time by asking to have the same thing read twice to him, so he trained his memory until he could carry the exact words on a page in his mind, and after a while he could repeat whole chapters without a mistake. But it was slow work making books this way. He was ten years getting his first one, the history of Ferdinand and Isabella, ready for the publisher.

Prescott did not talk about this work. No one but his parents and the secretaries knew that he was busy at all, because in his resting hours he was often seen at balls and parties, laughing and chatting in his own lively way. And one day one of his relatives drew him aside (this was when he had been grinding away in his library for eight years) and said: "William, it seems to me you are wasting your time sadly. Why don't you stop being so idle and try some kind of work?"

This same relation and all Prescott's friends were astonished and proud enough when, two years later, three big volumes of Spanish history were for sale in the book-stores, with William Hickling Prescott's name given as the author. That season everyone who could afford it gave their friends a

Christmas present of the Prescott books. He had compliments enough to turn his head, but he was too sensible to be vain. He wrote several other books and soon became famous. When he was in London, he had many honors shown him.

Prescott was fond of children and always kept a stock of candy and sweets on hand for small people. His servants adored him and so did his secretaries. They used to tell how he would frolic, even at his work. Sometimes when he had got to a place in one of the books where he must describe a battle scene, he would dash about the room, singing at the top of his lungs some stirring ballad like: "Oh, give me but my Arab steed!" And then when he felt he really "had his steam up" he would begin to write. He was kind and generous and showed so much courtesy to rich and poor alike that he has been called the finest gentleman of his time. No doubt he was, but it is true, too, that he was Prescott, the Brave!

Chapter 6

George Peabody

1795–1869

Many years ago a slender lad of seventeen left his home in Massachusetts and went to Georgetown, District of Columbia, to clerk in his uncle's store. No one who saw him then would have guessed that he would ever become one of the world's famous men. Yet his pleasant manners and his quiet ways made him the favorite of all who knew him.

George Peabody, George Peter Alexander Healy

"I do believe that Fortune is in love with my nephew George," said the uncle. "Why, he seems to turn everything to good account, and whatever he touches prospers."

But Fortune, even if she were in love with him, had not endowed him with wealth and fine opportunities to begin with. His school days had ended in his eleventh year, and since then he had been making his own way. For four years he had swept floors, washed windows, and carried packages for a grocer in his native town of Danvers. Then he had gone out to seek a larger business elsewhere. And at length we find him in his uncle's store selling broadcloth and silk, and very soon managing the whole business.

He seemed to have a natural insight into the proper methods of conducting any commercial enterprise. He knew what goods would be most in demand at a given time; he knew when to buy and when to sell. He was honest in all his dealings, and polite and accommodating to everyone, whether young or old, rich or poor. To his customers he was always considerate, never

trying to persuade them to buy what they did not want.

Of course, other merchants soon learned of George Peabody's engaging ways and his wonderful aptitude for business. Elisha Riggs offered to form a partnership with him.

"I will supply the capital," he said, "and you may conduct the business. If there are any profits, we will share them equally."

"But I am only a boy, Mr. Riggs," said young Peabody. "I am not quite nineteen."

"You are the man for the business," answered Mr. Riggs.

Accordingly the firm of Riggs & Peabody was formed. Wholesale drapers, they called themselves, and their business prospered from the start. With such a manager as George Peabody, there could be no such word as fail. The next year they removed to Baltimore, and soon afterward they established branch houses in Philadelphia and New York.

In 1826 Mr. Riggs retired, and George Peabody, at the age of thirty-one, found himself the senior partner in a very large and profitable business. The management of his affairs now called him often to London, and he soon saw that much time could be saved and many inconveniences avoided by establishing his headquarters there. In 1837, therefore, he took up his abode in England. He soon withdrew from the firm of Peabody, Riggs & Co., and established himself in London as a banker and commission agent.

He was paving the way for the performance of many golden deeds.

In 1852, when a ship was being fitted out in New York to visit the Arctic seas in search of Sir John Franklin, Mr. Peabody gave ten thousand dollars to defray the expenses of the voyage. In the following year he made a large gift to his native town for the purpose of founding there an institute and a library for the benefit of the people. From that time till the day of his death, he was always giving, giving. The list of his benefactions is very long.

He gave a million dollars to found and endow an institution for science in Baltimore. To many colleges and libraries in this country he gave various sums ranging from five thousand to half a million dollars. To the Southern Educational Fund he gave two-and-a-half million dollars to be used for the education of the poor in the South. And to the city of London he gave two-and-a-half million dollars for the erection of dwelling houses for poor workingmen. For this last gift the Queen sent him her

Photograph of George Peabody

George Peabody Library, Baltimore, Maryland

thanks, and declared it to be "a noble act of more than princely munificence."

In recognition of his good deeds, the people attempted in various ways to express their gratitude. The corporation of London granted him the Freedom of the City, an honor seldom conferred, except upon the greatest of men. Arrangements were also made for the erection of his statue in a public place. He received all honors with much modesty; and when as a mark of esteem he was asked to be the guest of honor at a reception or a public meeting, he gently declined. Only once did he appear in public in London, and that was at the close of an exhibition by the working-classes in 1866.

When seventy-one years of age he made preparations to pay a visit to his native land. Learning of this, the Queen proposed to honor him by making him a baronet, but he declined. She offered to make him a Knight of the Order of the Bath, but he declined that honor also, feeling that as an American he could not accept any title of nobility. Then the question was asked him, "Since you will not receive these honors, is there not some gift that the Queen may bestow in order to express her esteem and gratitude?"

He pondered a moment, and then answered, "Yes, there is one gift which I would gratefully receive and appreciate. It is a letter from the Queen of England, which I may carry across the Atlantic and deposit there as a memorial from one of her most faithful admirers."

A few days later this letter was received. He carried it to America and deposited it with a portrait

of the Queen in the Peabody Institute at Danvers.

When George Peabody died in 1869, the people of two continents mourned for him. His works live after him, and the good which they do increases with each passing year. Generation after generation will profit by his beneficence, and his name will long be remembered as that of one who loved his fellowmen.

Some will say that, without great natural aptitude and many advantages, no one can achieve the success of George Peabody. Listen to what he himself said at the dedication of the Peabody Institute at Danvers: —

"There is not a youth within the sound of my voice whose early opportunities and advantages are not very much better than mine were. I have achieved nothing that is impossible to the most humble boy among you. Steadfast and undeviating truth, fearless and straightforward integrity, and an honor unsullied by an unworthy word or action make their possessor greater than worldly success."

Chapter 7

Mary Lyon

1797–1849

Mary Lyon lived with her widowed mother on a rocky farm among the Berkshire Hills. She had five sisters and a brother, and all but one were older than she.

The place was so high up among the hills that it was known as the Mountain Farm. With much hard labor and the best of management, such a farm could be made to produce only a very little — so little that it was but a slender living, indeed, for six growing girls and a boy.

But Mrs. Lyon was courageous and hopeful, and the children were willing to work. Hence, with so many little hands doing their part, the wolf was kept from the door and each day brought a round of humble joys to the struggling family.

There was no school near the Mountain Farm, and the children were obliged to walk to Ashfield, two miles away. It was there that Mary distinguished herself. There was no better speller in the school. She learned all the rules of grammar in a wonderfully short time. No boy could see through a problem in arithmetic as quickly as she, and no one was more accurate with figures. She was soon known as the pride and the prodigy of the school.

Mary Lyon, illustration by Sherman Williams, 1904

But, whatever may have been her distinction, she won it honestly by hard work. "It's wrong to waste time," she said; and so she was always busy, reading, studying, doing chores on the farm, or helping her mother in the house.

"She'll be the scholar of the family," said her elder sisters. But while she was anxious to be a scholar, she was far more anxious to be helpful to other people.

When she was thirteen there came great changes to the family. Mrs. Lyon married again and

Bust of Mary Lyon, Bronx Community College Hall of Great Americans, New York, New York

went to live in a distant town with her husband. The elder girls were already gone. Only Mary and her brother remained. The brother took care of the farm and paid Mary a dollar a week to keep the house in order.

Soon the brother married, but Mary still helped with the housework. She did spinning and weaving for the neighbors and thus earned money for her own support.

The people of Shelburne Falls wanted someone to teach a summer school in their village. Mary Lyon offered herself for the position. She was only sixteen years old, but she was a woman in looks and behavior.

The school term would last twenty weeks and she was to receive seventy-five cents a week and board. Fifteen dollars for five months' work was not much; but the thrifty Yankees at Shelburne Falls said it was enough for a girl. Mary put every cent of it aside and saved it till it would be of the greatest use to her.

When she was twenty, she counted her money and found that by living very carefully she had enough to pay her expenses for a few months at a boarding school. To be a good scholar, to be a good teacher, was the dream of her life. Everything was bent to make that dream come true.

The Sanderson Academy at Ashfield was a good school for girls, as such schools went at that time. Mary Lyon became enrolled as one of its students. Oh, the labor, the weariness, the anxiety of the few months she was able to spend there!

She knew that her money would not last long. Hence, she wasted no time. She denied herself of needed rest. She taxed her strength to its utmost.

Her energy soon made itself felt. She advanced so rapidly that it was not long until she stood at the head of all her classes. Everybody said that she was the finest scholar that was ever enrolled in Sanderson Academy.

The next summer she taught another brief term of school, earned a little more money, and then hastened back to the academy. Thus for five years she worked her way in spite of every discouragement, and at the end of that time she was chosen an assistant in the academy. Young persons of ability who are willing to do honest work seldom have to go begging for places. Mary Lyon was offered more positions than she could accept.

Then she did a thing unheard of. She went to a professor at Amherst College and induced him

to give her special lessons in chemistry, in order that she might instruct her own pupils in that branch.

Many good people held up their hands in wonder. "What business has a girl to learn about such things?" they asked.

Now, I should explain that in Mary Lyon's time — which was not so very long ago — there was not a girls' college in all the world. There was no school in the United States in which a young lady could be educated as thoroughly and as well as a young man. There were many female academies, as they were called, where the daughters of the rich were taught fashionable accomplishments — a little history, a little poetry, a little French, and perhaps a little Greek and Latin. But that was all. The bare idea of a girl studying the sciences or trying to qualify herself for any useful occupation was thought not only ridiculous, but wrong.

It was right here that Mary Lyon began to make her work and her influence felt. "Why may not young women have the same educational opportunities as their brothers?" she said. And the rest of her life was given to the working out of that problem.

She went back to her native town. She rented a small room and gave notice that she would open a school for girls.

To her surprise she enrolled twenty-five pupils. Within a week the number was doubled and the school was removed to the village hall. This place, too, was soon filled to overflowing, and many of the classes were obliged to meet in private houses.

The tuition fees were very small, just enough to pay running expenses. But Mary Lyon was not

Mary Lyon's Grave, Mount Holyoke Campus, South Hadley, Massachusetts.

teaching for money. She was teaching to establish a principle and to benefit humanity.

Her school was continued for six years. It was the first school of its class in America to which the daughters of people in humble circumstances could afford to go.

I need not tell of the struggles that followed. Mary Lyon had made up her mind to establish a great school for the education of girls, and she labored steadfastly to that end. Through all sorts of discouragements she persevered, feeling sure that she would succeed in the end.

At length, when she had completed her thirty-seventh year, she was able to see her dearest wishes realized. With the aid of sympathizing friends, she had secured money enough to purchase land and erect buildings for the beginning of her school. It was called Mount Holyoke Seminary. On the first day there were three times as many students as could be accommodated. More than two hundred were turned away because there was no room for them.

For twelve years Mary Lyon lived to conduct this school which was to illustrate her idea of the proper education of young women. Nearly twenty-four hundred pupils came to her, and were influenced by her enthusiasm, by her self-denial, and by her untiring devotion to duty.

The school at Mount Holyoke was the forerunner of scores of noble institutions all over our country that have since been founded in order to give to American girls the same opportunities for culture that are given to their brothers.

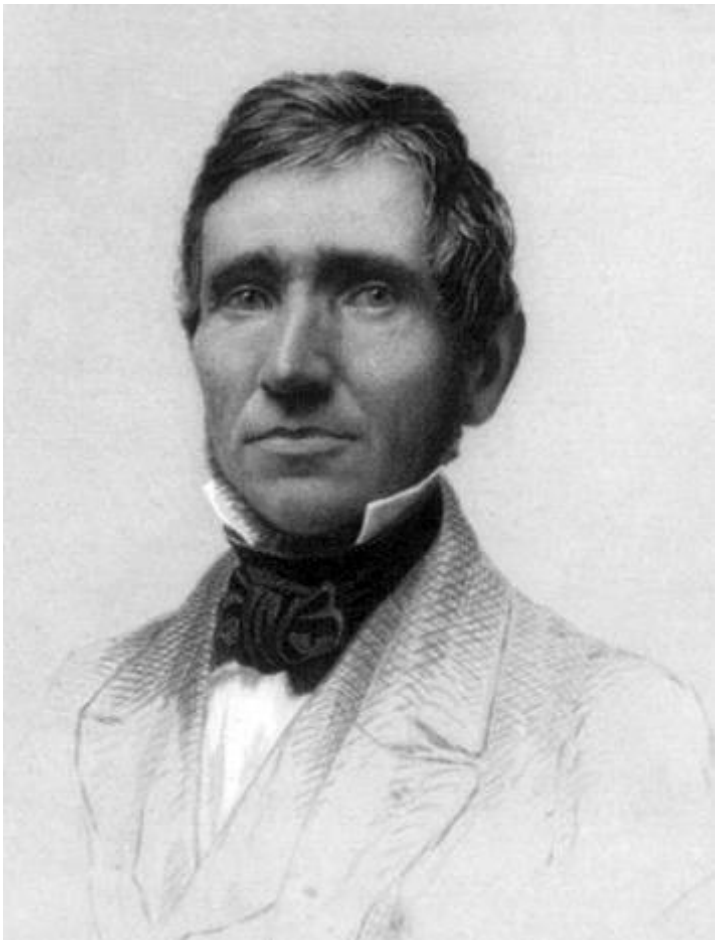
"There is nothing in the universe that I fear," said Mary Lyon, "but that I shall not know all my duty, or that I shall fail to do it."

Chapter 8

Charles Goodyear

1800–1860

The stories of Morse of the telegraph and Howe of the sewing-machine are remarkable examples of perseverance under difficulties that would crush a common man. The story of Charles Goodyear, which we have next to tell, is one of the same kind. No man ever kept up his spirit longer under trials and troubles than this great discoverer, winning success where thousands would have failed. The story of his life is that of the India-rubber industry. His labors in this took more than ten years of the prime of his life. For it he suffered poverty, imprisonment, and ridicule, and, though he produced one of the great modern industries, he failed to gain an adequate return in money for his great sacrifice. Fortune did not come to him as it did to Morse and Howe, and he had largely to be content with the satisfaction of helping mankind.



Engraving of Charles Goodyear, William Jackman

The sap of the India-rubber tree long held out a promising lure to inventors. It formed a waterproof material which could readily be moulded into almost any shape, and in the first half of the last century many companies were organized for the manufacture of shoes and other rubber goods. But there was one great difficulty, the rubber was fit for use in winter, but it would not bear the summer's heat, softening and becoming useless.

In the opinion of certain manufacturers of India-rubber life-preservers in 1834, the business was almost hopeless. They would make a large quantity of goods during the winter and sell them for good prices, but in the summer many of these melted down and were returned as ruined. The rubber would grow sticky in

the sun and stiff in the cold. Many efforts had been made to overcome this by mixing other materials with it, but all in vain, and ruin seemed to stare all rubber manufacturers in the face. The man who saved them from this fate was Charles Goodyear, a merchant of Philadelphia, but a native of New Haven, Connecticut, in which city he was born on the 29th of December, 1800.

At the time mentioned he was engaged in the hardware business of A. Goodyear & Sons in the Quaker City. At this period a very large business had sprung up in the rubber trade, in spite of its disadvantages, and he grew interested in it as a possible source of profit. When in New York one day he bought one of the India-rubber life-preservers made by the Roxbury Rubber Co., the manufacturers above spoken of. Having the taste for invention of a true son of Connecticut, he took this home, examined it carefully, and fancied that he could improve upon it. He soon devised a plan, which he took to the Roxbury Company and asked them to adopt. They declined to do so, telling him the story of their difficulties in some such words as those above given.

"Your plan is a good one," he was told, "but business conditions will not let us take on new expenses. If you can only find some way to make India-rubber stand the heat of summer and the cold of winter, both our fortunes will be made. Anything less than that will be of no use to us."

Here was an idea, thrown out as a mere suggestion, but it was one that sank deep into Charles Goodyear's mind. But he was very poorly fitted to work it out. A chemical process was needed, and he knew almost nothing of chemistry. In fact, he had little education of any kind. Money was wanted, and he was scantily provided with that. The failure of some business houses about this time made his father's firm bankrupt, and he, as a member of the firm, was arrested and imprisoned for debt.

Those were the years in which a debtor could be put in prison, and during the several years following Goodyear spent much of his time in jail. He had a family, he was in poor health, he needed to do something that would make him a living, but he had grown so infatuated with the idea of discovering the secret of a marketable India-rubber that he could think of nothing else.

Rubber was abundant enough in those days, and he was able easily to get it even when in prison. He was constantly engaged in experiments with it, whether in prison or out. His friends, who aided him at first, soon grew tired of encouraging him in what they deemed his infatuation. His ignorance of chemistry was much against him, and though he explained his difficulty to the chemists of his city, none of them were able to help him.

If Charles Goodyear lacked money, there was one thing he had in abundance — perseverance. He never gave up. Persuasion, argument, ridicule, had no effect upon him. He tried endless experiments, made India-rubber fabrics of various kinds, and, with a native taste for art, ornamented some of them. It was this that led to his first step towards success.

He had bronzed the surface of some rubber drapery, and, finding his bronze too heavy, poured aquafortis on it to eat some of it away. The acid did its work too well, removing all the bronze and discoloring the fabric, so that he threw it away as spoiled. Thinking over it some days later, he picked up the discarded piece and examined it again, and was delighted to find it much improved in quality, it bearing heat far better than any he had tried before. Here was something learned. He hastened to patent his new process, and, gaining some money, he engaged in the manufacture of rubber treated with aquafortis.

But his troubles were not yet at an end. People had grown sick of India-rubber, which had ruined

many firms that had engaged in it, and no capitalists cared to touch it. As for Goodyear himself, many began to think that he had become so possessed with his idea that he was little better than a crazy man. His enthusiasm for his rubber was such that he wore whole suits made of it, coat, cap, shoes, and all, and made himself a walking advertisement. He talked of it so incessantly that people felt like running away from him. It was "rubber, rubber, rubber," all day long, till many voted him a nuisance.

All this time he was suffering from poverty, and the pawnbroker and he grew much too well acquainted. His family suffered as well, and want ruled in the Goodyear household. After a time he persuaded some of the members of the old Roxbury Company to invest in his new discovery, and a new factory was started, which for a time did a large business. Then it was found that the aquafortis hardened the surface only, and that the rest of the rubber would not bear the heat. At once the business fell off, the Roxbury men withdrew their funds, and the inventor sank into destitution again.

His friends now did their utmost to persuade him to give up his fruitless work. His wife and children did the same. But they advised and persuaded in vain. He would not yield. Through all he was working blindly, handicapped by his small knowledge of chemistry, and simply making chance experiments, but for all this he kept on. Luck came through an assistant of his who had tried the effect of mixing the gum with sulphur. This was a new process, not tried before by Goodyear, and he studied it thoroughly, working at it for months, but with very unsatisfactory results. Yet the end was near at hand. Chance helped him where science had failed. One day in 1839 a mass of gum and sulphur he had mixed happened to touch a red-hot stove. To his surprise and delight, its character was changed by the heat and it would not melt. He tried and tested it in every way he could think of, and always with the same result. He had penetrated the mystery. The great secret was his! All that was needed was to mix the gum with sulphur and expose it to great heat. It would afterwards stand both heat and cold.

Ella [Goodyear] in one of the dresses that she wore when she and Charles were guests of President and Mrs. Grover Cleveland in the White House.

For five years the indefatigable

investigator had been steadily at work, in prison and out, in poverty and want, under every discouragement, enduring the ridicule of the public, the reproaches of friends and family, the insults of those who touched their heads significantly when they looked at him. He had at last won out, as the saying is; the great discovery of vulcanized rubber was his, and fortune at length seemed to lie in his path.

Yet it did not come quickly. Six years more of severe labor and hard trials were before him. He did not propose to act hastily again, as he had with his former discovery. He spent these years in new experiments, working out one thing after another, perfecting this point and that, and taking out a patent on everything achieved, until he had sixty patents in all, covering every step he had made.

Unfortunately, his patents were confined to America. Other parties secured in England and France the rights which should have been his, litigation was needed at home to protect his rights, and his profits from his valuable discovery were far smaller than they should have been. But honors came to him from many sources. From the Crystal Palace Exhibition of 1851 he received the Grand Council medal, and at the Paris Exposition of 1855 the emperor gave him the Grand Medal of Honor and the Cross of the Legion of Honor. But disease had attacked the discoverer. Returning to America in 1858, he went to work energetically to perfect his processes, but his ills had become chronic, and death came two years later, on July 1, 1860.

"He lived," says Parton, "to see his material applied to nearly five hundred uses, and to give employment, in England, Germany, France, and the United States, to sixty thousand persons. Art, science and humanity are indebted to him for a material which serves the purposes of them all, and serves them as no other known material could."

Charles Goodyear Gravesite,
Grove Street Cemetery, New Haven, Connecticut

Chapter 9

Cyrus Hall McCormick

1809–1884

Engraving of Cyrus Hall McCormick

Upon a prosperous little farm in Rockbridge County, Virginia, Cyrus McCormick was born in February, 1809. The home was humble, but the family all worked hard and prospered.

The McCormick homestead was a busy place, for those were the days of home-made articles. A family had to invent its own conveniences or go without them. Factories scarcely existed when Cyrus was a little boy. His father had designed and manufactured most of their furniture. His mother not only cut and sewed the children's clothes, but she first spun the wool and wove the cloth. Mittens, caps, shoes, and stockings were all made in this busy household. Candles were molded, carpets were woven, soap was manufactured, hams were cured, and many other things were made which we now buy ready to use.

The country schools at this time were poor and Cyrus had little chance for education. He is said to have been deeply interested in his books, especially in geography. One day, when he was about fifteen, he surprised his teacher by bringing to school a map he had made. It showed the two hemispheres side by side. These were carefully drawn with ink on the paper, which was pasted upon cloth, with rollers at the top and bottom. "This is beyond me," said the teacher, and Cyrus's map made him famous in the neighborhood.

As soon as he was old enough he helped his father with the farm work. One of the hardest tasks in those days was cutting the wheat. There were no machines to do this work. The men and boys had to go into the fields with scythes and cradles and mow the grain by hand. They then collected it in bundles and tied these with cords. Often some of the grain spoiled, because the cutting process was so slow.

Cyrus's father had tried for many years to invent a machine that would cut the grain and tie it into bundles. As the boy swung his cradle through the long, hot summer days he thought about

inventing a reaper himself. Tired as he was at the end of his day's work he would spend his evenings figuring and planning such a machine.

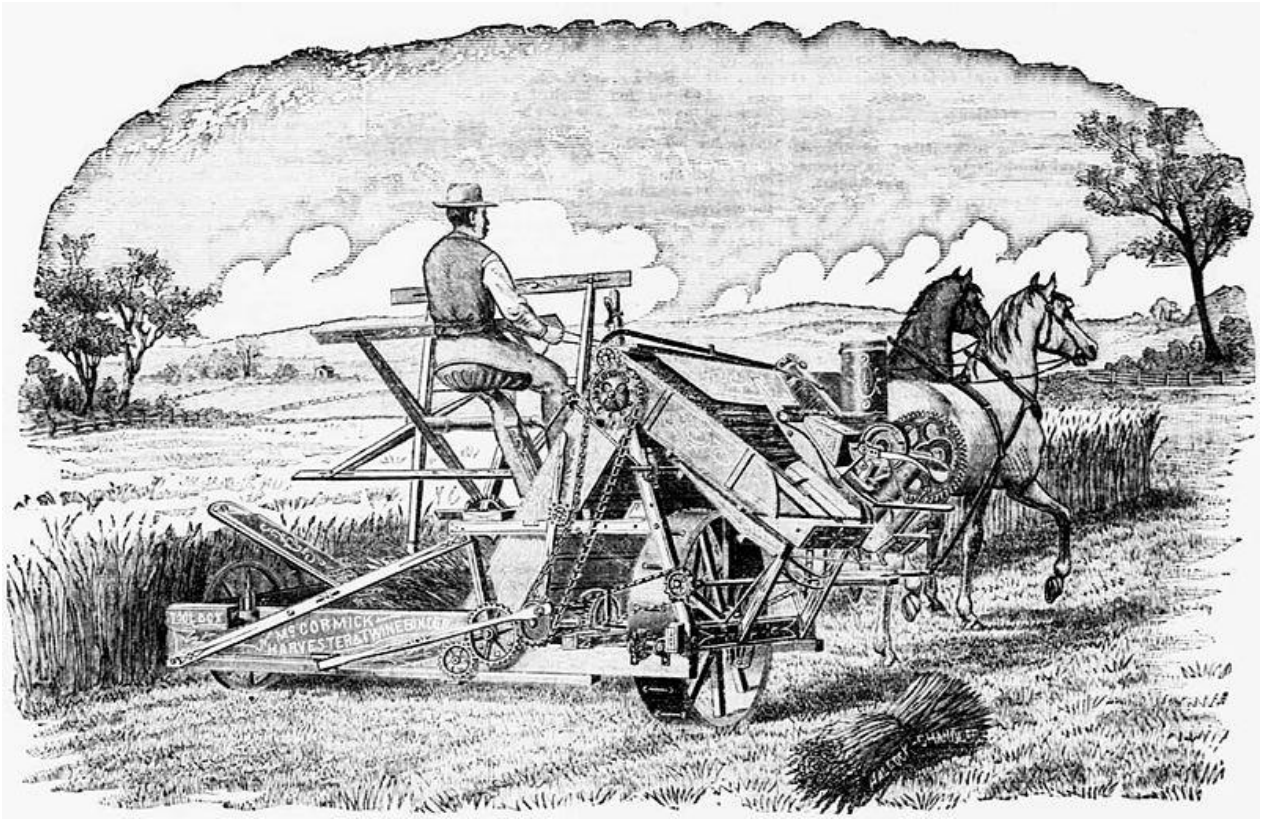
If only machinery could be made to do the hard work that was wearing out the farmers — this became the controlling idea of his young mind. From the time that he was a little child he had watched his father trying to make a reaper, and "reaper" was one of the first words Cyrus had learned. Now he studied the machine his father had made to see why it would not do the work. He knew how to use tools, to make the wooden parts. He had often helped his father in the blacksmith shop which stood on their farm, so he knew how to work in iron, too. When he had made his plans carefully, he set to work to make a reaper of his own.

By the summer of 1831 he had built a reaper, every part of which he had made himself. One hot July day the youth of twenty-two rode into the harvest field on a queer-looking machine slowly drawn by two horses. All the family followed as the reaper advanced to the yellow grain which stood shining in the sunlight. Click, click, click went the knives, and as the machine advanced, it left a row of bundles behind it.

McCormick knew now that his invention was a success, but he had to prove it to others. Soon after this he arranged to show his reaper at work in a field near Lexington. When the day came, farmers were gathered from all around. Every fence post was occupied by a boy and every one was eager to see.

When the machine came in sight, a crowd was following it. McCormick drove into the field which had been selected. It was very hilly and therefore the machine began to shake and jerk and

Cyrus Hall McCormick Farm, Rockbridge County, Virginia



From an 1884 advertisement for the twine binder version of the McCormick reaper

tear the wheat badly. Laughter and shouts of ridicule arose from the crowd. "It's a humbug," "Give me the old scythe yet," were some of the things McCormick heard.

The owner of the field rode up and called to him: "Here, this won't do. Stop your horses. You are spoiling my wheat."

The young man stopped, but his disappointment changed to joy when he was invited by the owner of the next field to try his machine there. The ground was level, and within a few hours the new reaper had cut and bound six acres of wheat.

McCormick at once began to manufacture reapers in a shop on his father's farm. There was little advertising in those days, and it was several years before many farmers learned about the harvester, as it was called. When orders began to come in, McCormick found another difficulty. It was to the west of Virginia, in the wide valley of the Mississippi, that there was the greatest need for reapers. There was no railroad by which they could be shipped. To send them by water was a long and slow way. They had first to be hauled in wagons overland; they then went by canal to Richmond, from there to New Orleans on the ocean, and finally up the Mississippi and Ohio rivers to Cincinnati.

McCormick decided he must manufacture the reapers nearer where they would be used. He went first to Cincinnati, but later decided on Chicago, and built a factory there in 1846. Ever since then McCormick harvesters have been made and they are now shipped all over the world.

In a few years the name of Cyrus Hall McCormick was known to many nations. He visited

Cyrus McCormick statue,
Washington and Lee University, Lexington, Virginia

Europe and was everywhere entertained with honor. He was elected a member of the French Academy of Science because, as was said, "He has done more for the cause of agriculture than any other living man."

In 1898 twenty thousand reapers were shipped to England in a fleet of twelve ships. Today the reaper is the machine exported in greatest numbers, and more reapers are manufactured in the United States than in any other country in the world.

With its final improvements one reaper can do the work of ten men. Thus it has not only lightened the farmer's labor, but made it possible for him to cultivate much larger fields of grain. This has given the farmer better pay for his labor and increased the wealth of our land.

Even more important is the additional food which improved farm machinery has enabled the farmer to grow. The United States raises wheat not only for its own people, but exports millions of bushels every year. In the World War and the time immediately following it, our country fed the starving nations of Europe. No one can tell how many thousands of lives were saved by bread made from wheat cut by the McCormick reaper.

Chapter 10

Ralph Waldo Emerson

1803–1882

You can't think how hard fathers and mothers used to work and plan to get their children educated in the old days when there were no public schools. The Emersons did some planning, I can assure you.

All the pictures of Ralph Waldo Emerson that I have happened to see show him as a man of middle age, with very smooth hair, and plain but very nice-looking clothes. He looks in these pictures as nurse Richards used to say of my father — "as if he had just come out of the top bureau drawer."

Well, Ralph Emerson did not always wear fine clothes, but I would not be a bit surprised if he always looked middle-aged. Boys who had as little fun as the Emerson boys had when they were growing up would not be expected to look young.

Ralph Waldo Emerson, Eastman Johnson

In the end, Ralph became a minister, as well as a writer, and a lecturer, and a philosopher. His father and his grandfather had been ministers, too. I fancy it was trying to send all these minister Emersons to school and college that kept each set of parents so poor.

Ralph's father, William Emerson, did not care to be a minister. He wanted to live in a city and teach school, play his bass viol, and belong to musical or singing clubs. But his mother looked ready to cry when he told her this and said: "Why, William, it has taken all the money I had to send you through Harvard College. What good will it do you, if you do not become a preacher?" So, rather than grieve his mother, he agreed to fit himself for preaching. How he hoped he might be sent to some large town! But instead of that, he settled in a small place where neighbors lived two or three miles from each other. He was as lonesome as he could be. He was too poor to buy a horse and too busy to spend half his time

The home of Ralph Waldo Emerson

walking, so he could not get very well acquainted with the families that came to hear him preach. Besides, his pay was small, and if the kind-hearted farmers had not brought him a ham, a leg of lamb, or a load of wood now and then, I don't see how he would have managed.

In spite of all these hindrances, William saved a little money in five years. He bought a small farm and got married. As the years went by and there were children to feed, his preaching did not bring half the money they needed, so he taught school, his wife took boarders, and he — even — sold — his — beloved bass viol. And I do not think they felt that anything was too hard if only these children could go to college. Mrs. Emerson was very proud of her husband when he stood in the pulpit on Sundays, and used to shut her eyes and try to imagine how their boys would look in a pulpit.

Finally good luck came their way. Mr. Emerson was asked to preach in Boston. Then he had the city life he loved, he heard good music, and could call on his friends three times a day if he wished, and the boys had fine schools.

None of the children were over ten when this good man, Minister William, died. And then came the widow's struggle to educate them. The church members were kind to her; she took boarders again, and sewed and mended with never a complaint, so long as the boys could go to the Latin School. They saw how tired she got and kept wishing they could grow up faster, so they could earn money and let her rest. They helped her wash dishes, and they chopped wood and cleaned vegetables, while the other schoolboys played ball, or swam, or skated. There were no play hours for them.

Daguerreotype of Lydia Jackson Emerson and Edward Waldo Emerson

Ralph Waldo Emerson's study

They had but one overcoat between them. So they took turns wearing it. Some of the mean, cruel boys at school used to taunt them about it, singing out, when they came in sight: "Well, who is wearing the coat to-day?"

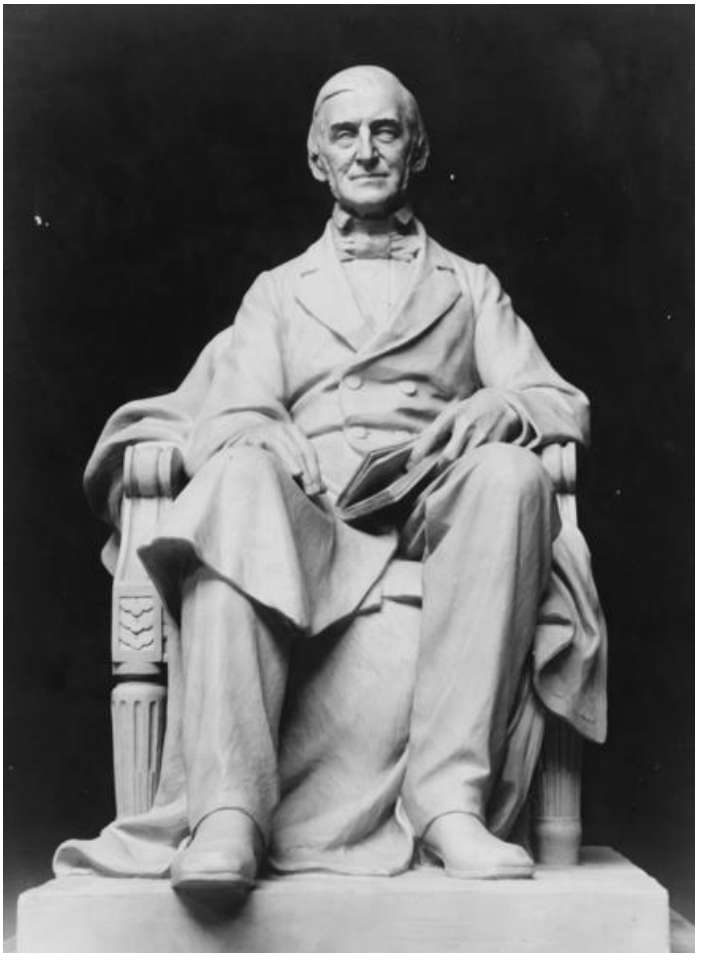
A spinster aunt, Miss Mary Emerson, came to see the family often. She urged the boys to stand high in their classes and thought it would not hurt them to do without play. She read all the fine books aloud to them that she could borrow. Once a caller found her telling the boys stories of great heroes, late at night, so that they might forget that they had been without food for a day and a half! They were as poor as that!

Ralph began to go to school when he was three and so was able to enter Harvard College when he was fourteen. He did not have to pay for his room at the president's house because he did errands for him. And to pay for his meals, he waited on tables. That was working to get an education, wasn't it?

Ralph did not find fault because he had to work all the time that he was not studying; he was thinking of his mother. When he won a prize of thirty dollars for declaiming well, he sent it to his mother as fast as the mails could take it and asked her to buy a shawl for herself. But she had to take it to buy food for the smaller children! Ralph used to tell his brothers that he could not think of anything in this world that would make him so happy as to be able some day to buy a house for his dear mother and to see her living easily.

The other boys — Waldo, Charles, Buckley, and Edward — proved to be fine scholars, like

Ralph, but they were never strong. They were always having to hurry south, or across the ocean to get over some illness. The truth is they did not have enough to eat when they were little. Old aunts can tell stories of heroes every night in the year, but that will never take the place of bread and potatoes, eggs and milk.



Statue of Ralph Waldo Emerson,
Cincinnati Art Museum, Cincinnati, Ohio

Ralph's mother was very happy that he became a minister, and like his father, preached in Boston. After some years of preaching, he traveled in Europe. Then he lectured. He had a beautiful, clear voice, and all the things he told were so interesting that his name became famous, even before he wrote books. He settled in Concord, where Thoreau and Louisa May Alcott lived. He knew so much that by and by people called him "The Sage of Concord." He said he could never think very well sitting down. So when he wanted to write a poem, or sermon, or essay, (and you can hardly step into a New England home where there is not a book called Emerson's Essays) he put on his hat and went out for a walk. When he had walked three or four hours, he had usually decided just what he wanted to write down. On this account he generally went out alone. It was after a stroll in the woods near Concord, where the squirrels are thick, that he wrote the fable about the mountain and the squirrel.

It begins this way:

"The, Mountain and the Squirrel
Had a quarrel.
The Mountain called the Squirrel 'Little Prig' —"

It is rather nice to remember that after William Emerson had sold his bass viol, after all the pinching and saving of Mrs. William, and after going with half a coat, Ralph Waldo Emerson proved, in the end, to be such an uncommon man and scholar that his name is known the world over. Perhaps if all of us were as willing to study and work, and to keep studying and working, as the Sage of Concord was, there would be ever so many more famous Americans than there are to-day.

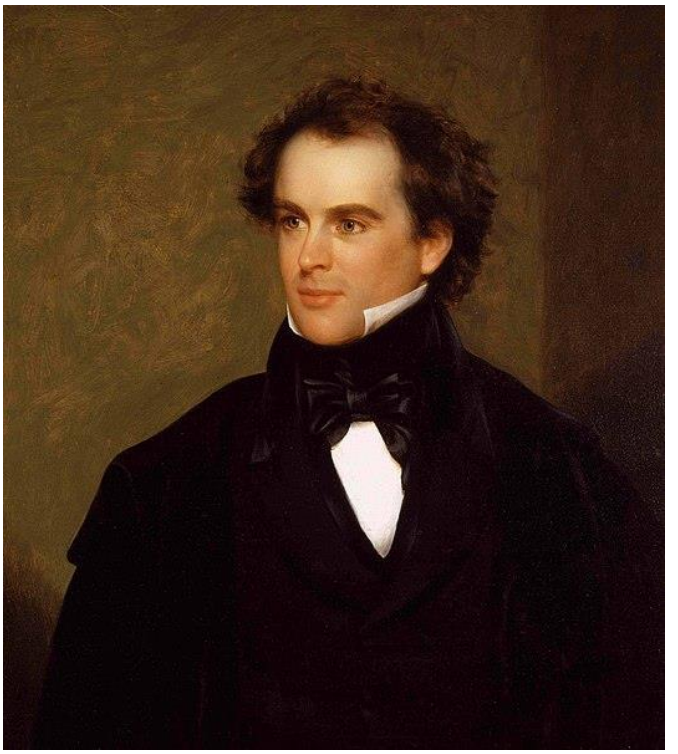
Chapter 11

Nathaniel Hawthorne

1804–1864

"I can recall no other American author who ever wrote under such persistent and continuous discouragement."

—Richard Henry Stoddard



Nathaniel Hawthorne, Charles Osgood

The only son of a sea-captain, one of a family of true-hearted New England Puritans, Nathaniel Hawthorne came into the world at Salem, Mass., July 4, 1804. The father died when his boy was but four years old, leaving a young wife, who, crushed by this early sorrow, shut herself out from society, and lived for forty years, till her death, a lonely and secluded life.

Mrs. Hawthorne, with her three children, Elizabeth, Nathaniel, and Maria Louisa, went to the home of her father, after her husband's death, and while there, her brother, Robert Manning, decided to educate her handsome and winsome boy. He was a lover of books, reading "Pilgrim's Progress" when he was six years old, and as soon as he could passably understand them, Shakespeare, Milton, Pope, and Thomson. The "Castle of Indolence" was his especial delight.

When he was nine, he was struck on the foot by a ball, and, being lame for some time, he would lie on the floor and read from morning till night. With the first money he ever earned, he purchased Spenser's "Faerie Queene," and was entirely happy when absorbed in its pages.

And yet he liked fun, was especially fond of animals, and had a passion for the sea. He used to say, "I should like to sail on and on forever, and never touch the shore again."

At fourteen, his family moved to Sebago Lake, Maine, where, he says, "I lived like a bird of the air, so perfect was the freedom I enjoyed… Ah, how well I recall the summer days; also when…I

roamed at will through the woods of Maine! . . . Everything is beautiful in youth, for all things are allowed to it then… Though it was there I first got my cursed habits of solitude."

Here he continued to read everything he could find: the Waverley Novels, Rousseau, and the Newgate Calendar. "He used to invent long stories, wild and fanciful, and tell where he was going when he grew up, and of the wonderful adventures he was to meet with, always ending with, 'And I'm never coming back again,' in quite a solemn tone, that enjoined upon us the advice to value him the more while he stayed with us."

At sixteen, the natural bias showed itself in the starting of a weekly paper, called "The Spectator," to which he seems to have been the only contributor, and well nigh the only subscriber, for, after six issues, he said, "We are sorry to be under the necessity of informing our readers that no deaths of any importance have taken place, except that of the publisher of this paper, who died of starvation, owing to the slenderness of his patronage."

A year later he entered Bowdoin College, with Longfellow, Cheever, J. S. C. Abbott, Franklin Pierce, and others. In college young Hawthorne enjoyed especially his English studies, and excelled in Latin composition. All along he had dreams of authorship. He wrote to his mother, "I do not want to be a doctor and live by men's diseases; nor a minister, to live by their sins; nor a lawyer, and live by their quarrels. So I don't see that there is anything left for me but to be an author. How would you like some day to see a whole shelf full of books written by your son, with 'Hawthorne's Works' printed on their backs?"

During these years, he wrote several poems and many sketches. George Parsons Lathrop, in his very interesting "Study of Hawthorne," tells how he gathered some of these sketches together with the title, "Seven Tales of my Native Land," and offered them first to one publisher and then to another, always with the same disheartening refusal. Finally a young printer of Salem promised to publish the book, but kept the manuscript so long that Hawthorne insisted upon its return, and at once burned it. What pain this must have cost him is only too well known by thousands of authors.

College days over, the outlook for literary pursuits was not inviting. His classmate, Pierce, went into the law, and Longfellow into a professorship, but Hawthorne went to his quiet home in Salem, to dream over his brilliant stories, and find no audience, save his own retiring family. For nearly twelve years he lived this secluded life, rarely going upon the Salem streets by daylight, and writing for the very few journals in which he could find an opening. No wonder he wrote long afterwards, "I sat down by the wayside of life like a man under enchantment, and a shrubbery sprang up around me, and the bushes grew to be saplings, and the saplings became trees until no exit appeared possible through the entangling depths of my obscurity. … I am disposed to thank God for the gloom and chill of my early life, in the hope that my share of adversity came then, when I bore it alone."

All these years he was reading intently. Lives of Mohammed, Pitt, Goldsmith, Coleridge, Shelley, Keats; books of travel, natural history, poetry, fiction, especially Scott and De Quincey, and encyclopaedias; four hundred books in seven years, besides piles of magazines. Nothing seemed to escape his absorbent mind.

If authorship, with its hard, vexatious work, had not brought the means of support, one joy, at least, had come to the non-expectant life. He had said, "Even a young man's bliss has not been mine. With a thousand vagrant fantasies, I have never truly loved, and perhaps shall be doomed to loneliness throughout the eternal future, because, here on earth, my soul has never married itself to

the soul of woman."

But he was not doomed to eternal loneliness. In Salem lived Doctor Peabody, with his wife and three gifted daughters, Elizabeth, the well-known author and teacher; Mary, who married Horace Mann; and Sophia. One evening — an unusual occurrence — the Hawthornes called upon the Peabody family. Elizabeth ran upstairs to the chamber of Sophia, who was an invalid, saying, "Sophia, you must get up and dress and come down! The Hawthornes are here, and you never saw anything so splendid as he is — he is handsomer than Lord Byron!"

She laughed and refused to go down, saying that, since he had called once, he would call again. He did call again, and Sophia came down in her simple white wrapper to see him. Elizabeth noticed that every time Sophia spoke, Hawthorne looked at her intently, "with the same piercing, indrawing gaze." "I was struck with it," she said, "and thought, 'What if he should fall in love with her!' and the thought troubled me; for she had often told me that nothing would ever tempt her to marry and inflict on a husband the care of an invalid."

Sophia Peabody Hawthorne, Stephen Alonzo Schoff

From that hour, they were all the world to each other. They breasted poverty, they basked in the full glory of fame and honor, and love grew brighter and brighter, till death made it unending. Sophia Peabody changed the loneliness of the great-hearted student into peace and perfect satisfaction. She was his inspiration, his guide and continual blessing.

From the first, Sophia looked upon Hawthorne as something more than earthly. After a call from him she wrote to her sister Elizabeth, who had gone to West Newton: —

"He looked like the sun shining through a silver mist when he turned to say good-by. It is a most wonderful face. … I feel as if he were a born brother… I feel the most entire ease with him, as if I had always known him."

In 1839, through the influence of Bancroft, the historian, who was collector at Boston, Hawthorne obtained the position of weigher and ganger in the Boston Custom House. The work was hard.

For two years he worked there, and for a third at "Brook Farm," always cheered by the hope of wedding Sophia Peabody. He wrote to her, "I invite your spirit to be with me — at any hour, and as

many hours as you please — but especially at the twilight hour, before I light my lamp. … We have met in Eternity, and there our intimacy was formed. I never till now had a friend who could give me repose; all have disturbed me… But peace overflows from your heart into mine. … It is very singular that while I love you so dearly, and while I am conscious of the deep union of our spirits, still I have an awe of you that I never felt for anybody else. … I suppose I should have pretty much the same feeling if an angel were to come from Heaven and be my dearest friend…"

And Sophia answered, "I am full of the glory of the day. God bless you this night of the old year. It has proved the year of our nativity. Has not the old year passed away from us? — are not all things new?"

If Nathaniel Hawthorne had never written anything besides these letters, the world would have been the richer, as it must necessarily be for every true expression of affection.

They were married July 9, 1842, he thirty-eight, and she thirty-two, now no more an invalid, but healed by that most potent of all remedies, love. They began their wedded life at the Old Manse in Concord. The wife, cheerful, hopeful, refined, and, what was best of all, believing that her husband had brilliant talents — is not half the battle won when somebody thinks we can be conquerors? — made his home a delight. Her son Julian says of her, "Her voice was joyful music, and her smile a delicate sunshine." She read Latin, Greek, and Hebrew, and was, as every woman must be who has lasting influence with her husband, his companion intellectually.

Six months after marriage, Sophia wrote her mother, "His will is strong, but not to govern others. He is so simple, so transparent, so just, so tender, so magnanimous, that my highest instinct could only correspond with his will. I never knew such delicacy of nature. He is completely pure from earthliness. He is under the dominion of his intellect and his sentiments. Was ever such a union of power and gentleness, softness and spirit, passion and reason? I think it must be partly smiles of angels that make the air and light so pleasant here. My dearest love waits upon God like a child."

As the months went by, the earnings did not always suffice for daily needs, and what money was due could not always be collected. Again the brave wife wrote to her mother, "But, somehow or other, I do not care much, because we are so happy… The darker the shadow behind him, the more dazzlingly is his figure drawn to my sight. I must esteem myself happiest of women, whether I wear tow or velvet, or live in a log cabin or in a palace."

In these days of poverty, Hawthorne wrote in his Note-Book, "The chief event of the afternoon, and the happiest one of the day, is our walk. She must describe these walks; for when she and I have enjoyed anything together, I always deem my pen unworthy and inadequate to record it.

"My wife is, in the strictest sense, my sole companion, and I need no other; there is no vacancy in my mind any more than in my heart."

After four years in Concord, where their first child, Una, was born, they returned to Salem, where Hawthorne had been appointed surveyor in the Custom House. This position he held for four years. The salary had been sufficient to support his wife and two children, their son Julian having been added to the household; but when this was withdrawn, the outlook was not hopeful.

Just at this time, Mr. James T. Fields, the publisher, who had heard that Hawthorne had been ill, came to Salem to see him, and thus describes: "I found him alone in a chamber over the sitting-room of the dwelling; and, as the day was cold, he was hovering near a stove. We fell into talk about his future prospects, and he was, as I feared I should find him, in a very desponding mood. 'Now,'

The Wayside, Nathaniel Hawthorne's home, Concord, Massachusetts

said I, 'is the time for you to publish, for I know, during these years in Salem, you must have got something ready for the press.'

"'Nonsense,' said he, 'what heart had I to write anything, when my publishers have been so many years trying to sell a small edition of the "Twice-Told Tales." Who would risk publishing a book for me, the most unpopular writer in America?"

"'I would,' said I, 'and would start with an edition of two thousand copies of anything you write.'"

As Mr. Fields took his departure, Hawthorne put in his hands the germ of "The Scarlet Letter," which the publisher read that night, and was delighted with it. At once the author began to amplify his work, and, when it was finished, read the conclusion to his wife, or, as he says, "tried to read it, for my voice swelled and heaved as if I were tossed up and down on an ocean as it subsides after a storm. It broke her heart, and sent her to bed with a grievous headache — which I look upon as a triumphant success."

The book was published in 1850, and in ten days five thousand copies had been sold. England saw the new hand in literature, and gave it praise. Who can ever read this book without being moved by its pathos and held spell-bound by its power? At last, at forty-six, after all the burning of manuscripts, a fire had been kindled in human hearts that would never go out. Henceforward,

instead of being the friend of Emerson and Longfellow and a chosen few, he was to be the admired of tens of thousands who would never be able to look upon his face.

What joy must have come into the heart that wrote previously, in his chamber, "Here I sat a long, long time, waiting patiently for the world to know me, and sometimes wondering why it did not know me sooner, or whether it would ever know me at all — at least, till I were in my grave… And now I begin to understand why I was imprisoned so many years in this lonely chamber…for, if I had sooner made my escape into the world, I should have grown hard and rough, and been covered with earthy dust, and my heart might have become callous by rude encounters with the multitude… But, living in solitude till the fulness of time was come, I still kept the dew of my youth and the freshness of my heart."

The next year, having moved to Lenox, where Rose, the third child, was born, he wrote "The House of the Seven Gables" in five months, which, like "The Scarlet Letter," became a favorite at once. He preferred it to the latter, but the world will probably hold to its first love, the book which made him famous.

His next volume was the "Wonder-Book," for children, containing the story of "Midas," "Pandora's Box," "Hercules in Quest of the Golden Apples," and other classic tales.

Nathaniel Hawthorne's "tower room" or "Owl's Nest" at The Wayside, Concord, Massachusetts

In 1852, he bought Mr. Alcott's home in Concord, with twenty acres, and called it "The Wayside."

Life, with fame for her beloved husband, was full of blessing to Mrs. Hawthorne. She wrote, eight years after marriage: "I cannot possibly conceive of my happiness, but, in a blissful kind of confusion, live on. If I can only be so great, so high, so noble, so sweet as he, in any phase of my being, I shall be glad."

Concord was a place of delightful rest for the tired man, who had written five books in three years, and had earned both fame and a fair competency. The world usually discovers its geniuses, sooner or later, but sometimes when they are beyond the hearing of earthly praise.

Congratulations poured in from every side. Here in Concord, where he could enjoy trees and sunshine, those essentials to a poetic nature, Hawthorne wrote his "Tanglewood Tales."

It was Hawthorne's custom to walk several hours a day, on a ridge back of the

house; his "Mount of Vision," his wife called it, where he wore a narrow path, two or three hundred yards long. He planned his books in this quiet spot, and gained rest for closer work indoors.

The Civil War had begun, and Hawthorne's heart was too heavy for much literary work. The hand that held the pen was becoming weary. He grew pale and thin, and in the spring and summer of 1863 went southward for his health, with his friend and publisher, W. D. Ticknor, who died suddenly, leaving Hawthorne greatly reduced by the shock and sorrow.

On his return Mrs. Hawthorne cared for him tenderly. She wrote Mr. Fields: "I do nothing but sit with him, ready to do or not to do, just as he wishes. He is my world, and all the business of it. He has not smiled since he came home till to-day, and I made him laugh with Thackeray's humor in reading to him; but a smile looks strange on a face that once shone like a thousand suns with smiles. The light, for the time, has gone out of his eyes entirely. An infinite weariness films them quite."

Again he started, in the middle of May, with his friend, Ex-President Pierce. They reached Plymouth, New Hampshire, and stopped at the Pemigewasset House, in the midst of exquisite scenery. Both friends retired early, their rooms adjoining. Several times Mr. Pierce came in to see if his friend slept well. After midnight he entered, and, not hearing him breathe, put his hand on Hawthorne's heart, and found that it had stopped beating. There was no pain; only an earthly sleep into a heavenly awakening.

The body was brought back to the sorrowing wife and fatherless children, and buried in the little cemetery on the hill-top, near where Emerson now rests. An unfinished romance was laid upon his coffin. Rev. James Freeman Clarke, who had married them twenty-two years before, conducted the funeral services. As the wife left the open grave, on either side of the path stood Longfellow, Holmes, Whittier, Lowell, Emerson, Agassiz, Pierce, and others, with uncovered heads, testifying their respect and sympathy.

The struggles and successes of authorship were over. The wonderful brain, with its psychological study, its keenest insight into human motives, and sympathy with all human suffering and weakness, had done its work. Beautiful in his home-life, he carried through his books the same purity and beauty into other homes.

Chapter 12

Louis Agassiz

1807–1883

Louis Agassiz was a Swiss boy who knew how to keep his eyes open. Some people walk right by things without seeing them, but Louis kept a sharp lookout, and nothing escaped him.

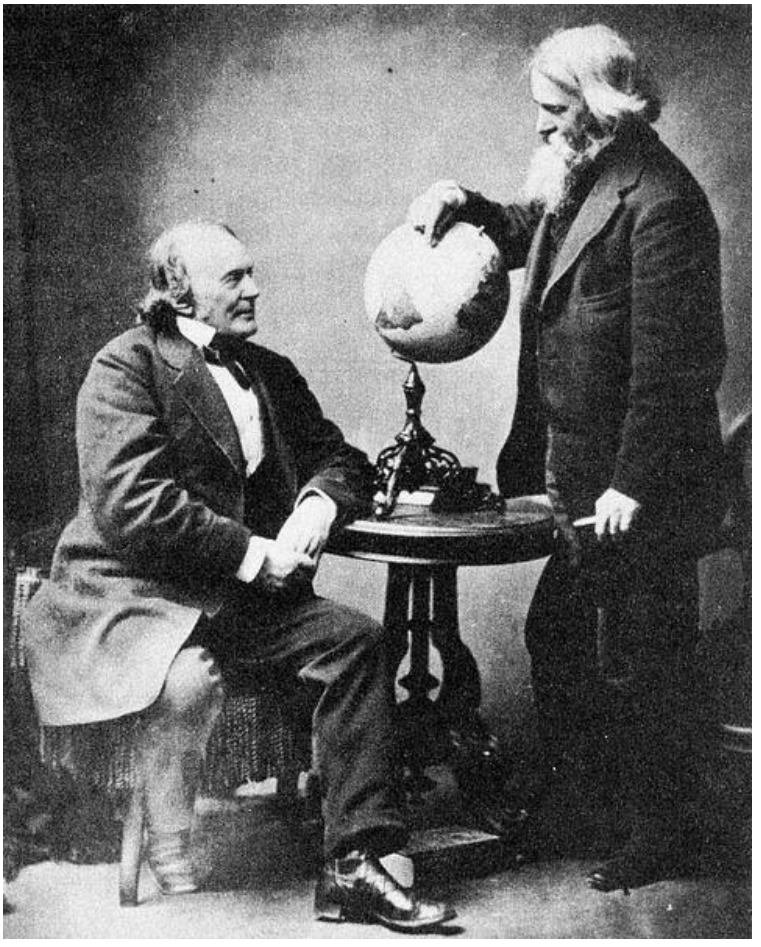
Louis was born in a small Swiss village near a lake. His father was a minister and school teacher. His mother was a fine scholar and was very sure that she wanted her children to love books, but two brothers of Louis's had died and she meant to have Louis and another son, Auguste, get plenty of play and romping in the fields so that they would grow up healthy and strong, first of all; there would be time for study afterwards.

The Agassiz boys had a few short lessons in the morning with their father or mother, and then they roamed through the woods and fields the rest of the day. Of course they found plenty to interest them and never came home from these jaunts with empty hands. They had pet mice, birds, rabbits, and fish.

There was a stone basin in his father's yard, with spring water flowing through it. In this Louis put his fish and then watched their habits. As I told you, nothing escaped his eyes. He proved this more than once.

It was the custom in Swiss cantons for different kinds of workmen to travel from house to house, making such things at the door as each family might need. Louis watched the cobbler, and after he had gone away surprised his sister with a pair of boots he himself had made for her doll. And after the cooper had made his father some casks and barrels, Louis made a tiny, watertight barrel, as perfect as could be. He kept his sharpest gaze on the tailor, and Papa Agassiz said to his wife: "Let us see, now, if Louis can make a suit!" They did not, in the end, ask him to try, but no doubt he knew pretty well how it was done.

Louis Agassiz, Fritz Zuberbühler



Photograph of Louis Agassiz and Benjamin Pierce

At the age of ten, Louis was sent to a college twenty miles from Motier, where his parents lived. He was keen at his lessons and asked questions until he mastered whatever he studied. The second year he went to this college he was joined by his brother, Augusta. The two boys liked the same things and never wanted to be away from each other. Whenever a vacation came, the boys walked home — all that twenty miles — and did not make any fuss about it!

By and by the boys wanted to own books which would tell them about birds, fishes, and rocks. These were the things Louis was thinking of all the time. The boys saved every cent of their spending money for these books. They were always talking about animals. One day, as they were walking from Zurich to Motier, they were overtaken by a gentleman in a carriage. He asked them to ride with him and to share his lunch. They did so and talked to him about their studies. He was greatly taken with Louis, who was a handsome, graceful lad, as he told the stranger his fondness for books. The gentleman hardly took his eyes from the boy, and a few days later Reverend Mr. Agassiz had a letter from him saying that he was very rich and that he wanted to adopt Louis. He said he was sure that the boy was a genius.

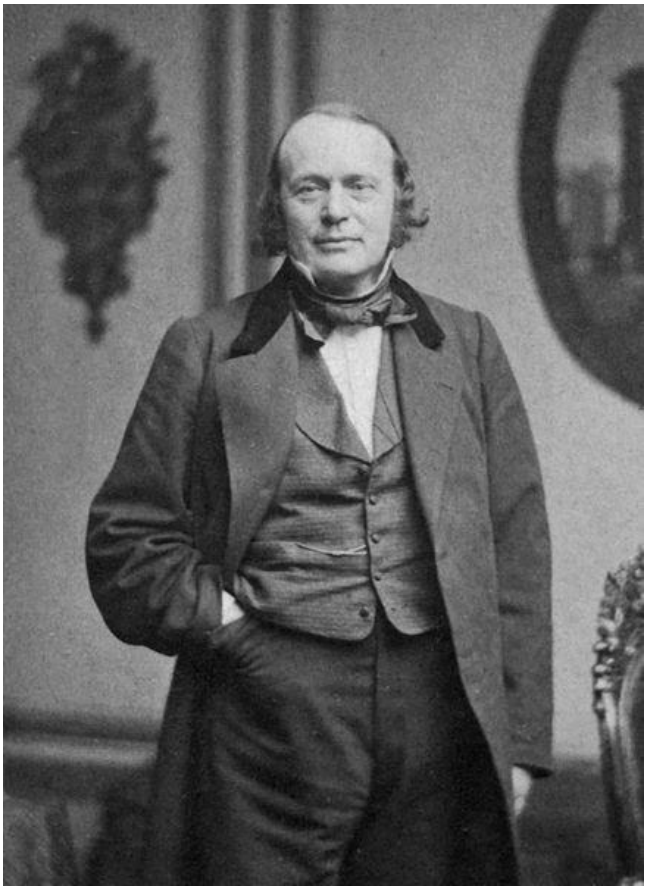
Louis was not willing, though, to be any one's boy but his own parents', and so the matter was dropped.

The boys did not have much spending money, and it took, oh, such a long time to save enough to buy even one book! So they often went to a library, or borrowed a book from a teacher, then copied every word of it with pen and ink, so as to own it. You can see from this that they were very much in earnest.

When not studying or copying, the brothers were busy outdoors, watching animals. In this way they learned just what kinds of fishes could be found in certain lakes, and almost the exact day when different birds would come or go from the woods. In their rooms the cupboards and shelves were crammed with shells, stuffed fishes, plants, and odd specimens. On the ledges of the windows hovered often as many as fifty kinds of birds who had become tamed and who made their home there.

At seventeen Louis was bending over his desk a good many hours of the day. He learned French, German, Latin, Greek, Italian, and English. But he was wise enough to keep himself well and strong by walking, swimming, and fencing.

Because Louis's parents and his uncle wanted him to be a doctor, he studied medicine. He carried home his diploma when he was twenty-three and earned a degree in philosophy, too. But in his own heart he knew he would not be happy unless he could hunt the world over for strange creatures and try to find out the secrets of the old, old mountains.



Photograph of Louis Agassiz

Louis traveled all he could and became so excited over the different things he discovered that he sometimes stopped in cities and towns and talked to the people, in their public halls, about them. He had a happy way of telling his news, and crowds went to listen to the young Swiss.

The King of Prussia thought that any one who used his eyes in such good fashion ought to visit many places. He said to Louis:

"Here is money for you to travel with, so that you may find out more of these strange things. You are a clever young man and can do much for the world!"

In the course of his travels, Louis Agassiz came to America. At that time he could not speak English very well, but all his stories were so charming that the halls were never large enough to hold the men and women who wanted to hear him.

Louis Agassiz loved America so well that he made up his mind to spend the rest of his life here. As time passed, he decided, also, to give this country the benefit of all that he discovered. He was so bright that the whole world was beginning to wonder at him. France got jealous of America's keeping such a great man. So Napoleon offered him a high office and great honors; but Louis said "No," adding courageously: "I'd rather have the gratitude of a free people than the patronage of Emperors!"

The city of Zurich begged him to return.

"No," he wrote, "I cannot. I love America too well!"

Then the city of Paris urged him to be at the head of their Natural History Museum, but this was no use, either. Nothing could win Louis Agassiz away from America.

At Harvard College Agassiz was made professor of natural history, and there is to-day at Cambridge a museum of zoology, the largest of its kind in the world, which Agassiz founded and built. At his home in Cambridge the professor still kept strange pets, quite as he used to do when a

boy. Visitors to his garden never knew when they might step on a live turtle, or when they might come suddenly upon an alligator, an eagle, or a timid rabbit.

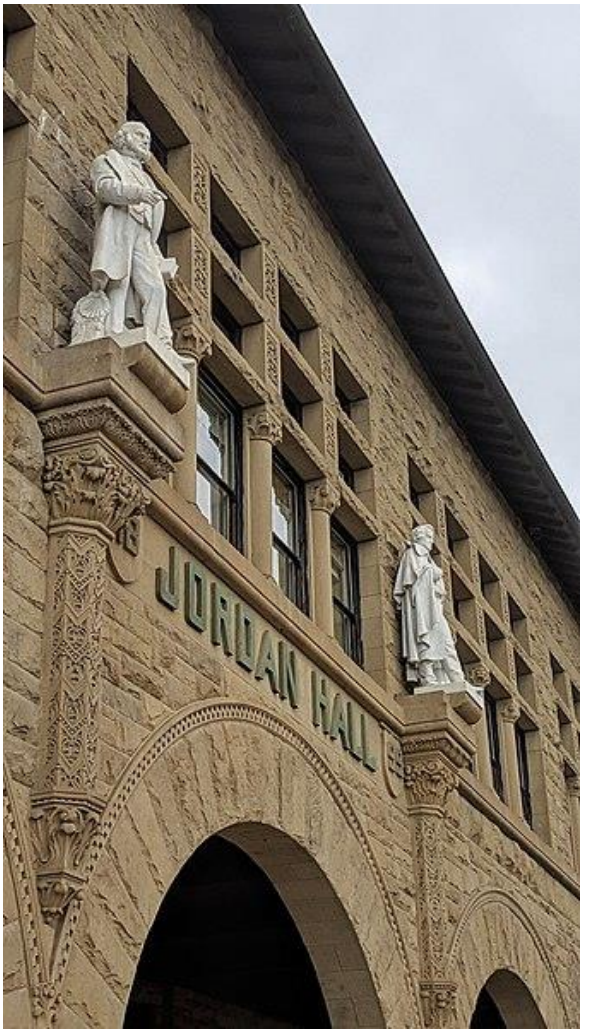
The precious dream of going to Brazil came true when Louis Agassiz was fifty years old. With a party of seventeen and his wife, he went on an exploring expedition to South America. It was a great adventure.

Agassiz had been to many cold countries and had slept on glaciers night after night, with only a single blanket under him, but never in his life had he been in the tropics.

When Agassiz arrived in South America, Don Pedro, the Emperor of Brazil, was glad to see the man who was known as a famous scientist and heaped all kinds of honors upon him. Better than all, he helped Agassiz get into many out-of-the-way places.

If you want to know about a fish that has four eyes, about dragon-flies that are flaming crimson and green, and floating islands that are as large as a school playground, yet go sailing along like a ship, bearing birds, deer, and wild looking jaguars, read: A Journey to Brazil by Professor and Mrs. Agassiz.

When you have heard the story of all these strange things, you will agree that Louis Agassiz did certainly know how to keep his eyes open.

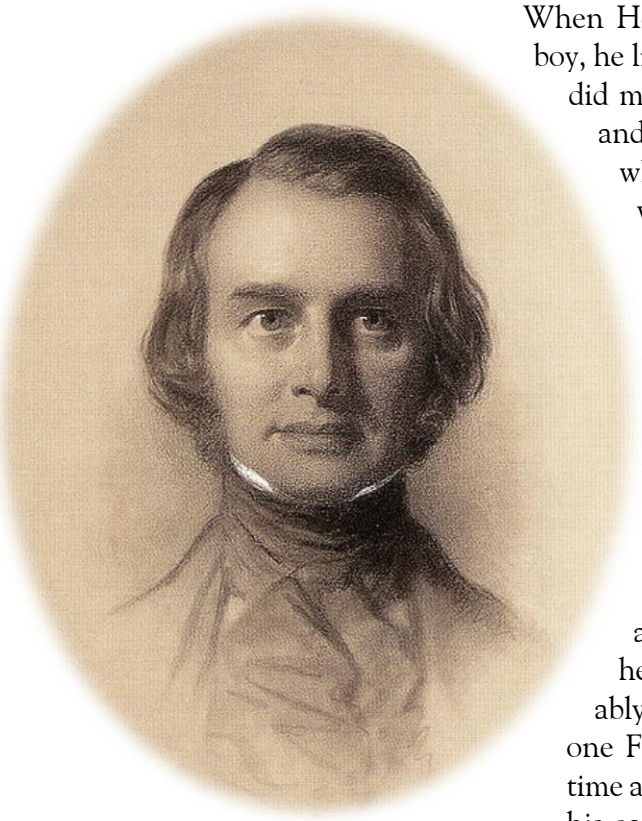


Statue of Louis Agassiz at Stanford University, Stanford, California

Chapter 13

Henry Wadsworth Longfellow

1807–1882



Henry Wadsworth Longfellow,
Eastman Johnson

When Henry Wadsworth Longfellow, the poet, was a boy, he lived in Portland, Maine. In those days Portland did much trading with the West Indies, and Henry and his boy friends liked to stay down at the wharves when the Portland vessels came in. It was sport to watch the burly negroes unload the hogsheads of molasses, the barrels of sugar, and the spices. The boys used to wish they were sailors or captains, so that they could sail across the water and perhaps have great adventures. Henry also thought it would suit him to be a soldier, and when he was five years old, and there was much talk about the great war which is called the War of 1812, he sent a letter to his father, who happened to be away at the time, that he had a toy gun already, and if his father would please buy him a drum, he would start right off for the battle-field. Probably he was not as warlike as he fancied he was, for one Fourth of July just after that, he jumped every time a cannon went off and begged his mother to stuff his ears with cotton, so that he would not hear the banging.

Henry liked music and books far better than fighting. He read a great deal with his mother, and they took long walks together, for they both loved flowers and birds. Twice every Sunday Henry went to church with his mother. In the cold weather he carried her foot-stove for her (a funny little box which held coals) and in the summer her nosegay, because she never went to service, after the flowers began to bloom, without a bunch of sweet smelling blossoms. This odd foot-warmer can be seen any time in the old Wadsworth-Longfellow house in Portland. Visitors from all over the world, even from India and Turkey, have wandered through this home of the poet to look at the desk at which he wrote, the rich mahogany chairs, and the old-fashioned mirrors.

Henry was willing to do errands or any tasks that his mother wished him to do. He did not mind even driving the cow to pasture, for as he walked along, he was usually making up rhymes. And although he had very good lessons in school, he often scribbled little jingles in his copy book. When he was thirteen, he told his sister that he was going to send a poem to the Portland newspaper. He did not tell anyone but her, and he only signed "Henry" at the end of the poem, so although the editor printed it, the other school children did not find out for a long time that it was his. Henry and his sister read the printed verses until they wore the newspaper to shreds and felt they had a lovely secret.

After Henry graduated from college, his father wanted him to be a lawyer, like himself, but Henry was sure he wanted to be an author. He said: "Don't ask me to study law, father; I think I can write books. Anyway, if you will let me have my way, I will promise to be famous at something." So his parents let him travel through Europe, and when he sent long, happy letters home, telling about the different things he saw, they were so charming that all the neighbors wanted to borrow the letters, and Mr. and Mrs. Longfellow agreed that Henry would probably be famous with his pen.

When Henry came home again, he was chosen for a college professor. He was only twenty-two, and it began to look as if the Portland boy would be a success even if he did not study law.

The students at Harvard College loved young Professor Longfellow. He was so handsome, so lively, so exquisitely neat in dress, that they were very proud to introduce him to their parents, and best of all, he made their lessons so interesting that they were actually sorry when the class was dismissed. He proved a fine teacher. But, besides teaching in the college, Henry wrote poem after poem. It was not long before his verses were liked in other countries as well as in America. French people began to say: "Why, we want our children to know Henry Wadsworth Longfellow's poems!" And Spanish ladies and Italian noblemen declared they were beautiful. Finally so many countries were asking for these poems they were translated into fifteen languages.

Longfellow was soon called "The Poet of Every Land."

You will think that was the right name for him, when you hear what happened on a big ocean steamer. Once a large party of travelers

Photograph of Fanny Appleton Longfellow, with sons Charles and Ernest

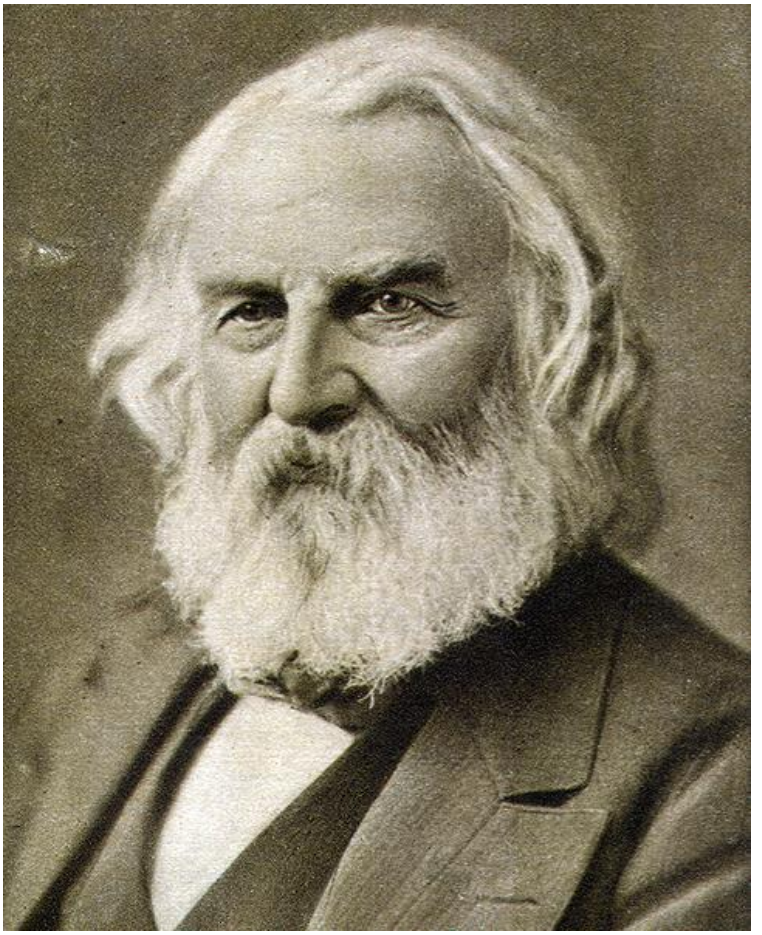
were sailing from Greece to France. As they sat talking one evening, somebody praised the great French poet, Victor Hugo. A lovely Russian lady spoke up: "Victor Hugo is fine, but no poet is so well known as the American Longfellow. I want to go to Boston to see the Bridge about which he wrote." Then she repeated every word of "I stood on the Bridge at Midnight." Upon that, an English captain just back from the Zulu war, recited a Longfellow poem. A gray-haired Scotchman said another, an American remembered one, a Greek sang some verses of Longfellow's that had been set to music, and when the French captain of the steamer declaimed "Excelsior," there was great hand-clapping, and it showed that Henry Longfellow was indeed a favorite poet.

Henry Longfellow liked Cambridge. He boarded in a fine old place, Craigie House, where General George Washington had once stayed. And when he was married to a Boston girl, her father gave them Craigie House for a wedding present. Longfellow was so happy as the years went on, that he wrote better than ever. You will like his "Hiawatha", which tells about the Indians, his "Evangeline", and the story of Myles Standish. Do not forget to read "The Children's Hour." Longfellow was never too busy to play with his children and saw to it that they were kept happy. Once when he took the three girls to England, Charles Dickens, the great English writer, asked them to visit at his grand place, Gads Hill. He sent a wonderful coach, all glittering with gold trimmings and driven by men in scarlet livery, to the station for them, and had a Swiss chalet in his garden for them to use as a playhouse. Many great people gave them dinners and parties. But what pleased them most of all was the respect shown their father. One of the daughters still lives in Craigie House, which is often visited by people who love Longfellow's poems and who wish to see the rooms in which he lived.

Photograph of Henry Wadsworth Longfellow at his study table

Longfellow could sell his verses as fast as he wrote them. A New York editor once paid Longfellow three thousand dollars for one short poem. And imagine how proud his wife and children must have been to overhear people saying: "I wonder if Mr. Longfellow has written anything lately. If he has, I must read it!" Imagine how happy it made his father that he had kept his word: "If you will let me have my way, I will promise to be famous in something." And surely all the Americans

who were on that steamer and heard the Russian, the Greek, and other foreigners reciting Longfellow's poems must have been proud that a man from their own country had won the name of "The Poet of Every Land."



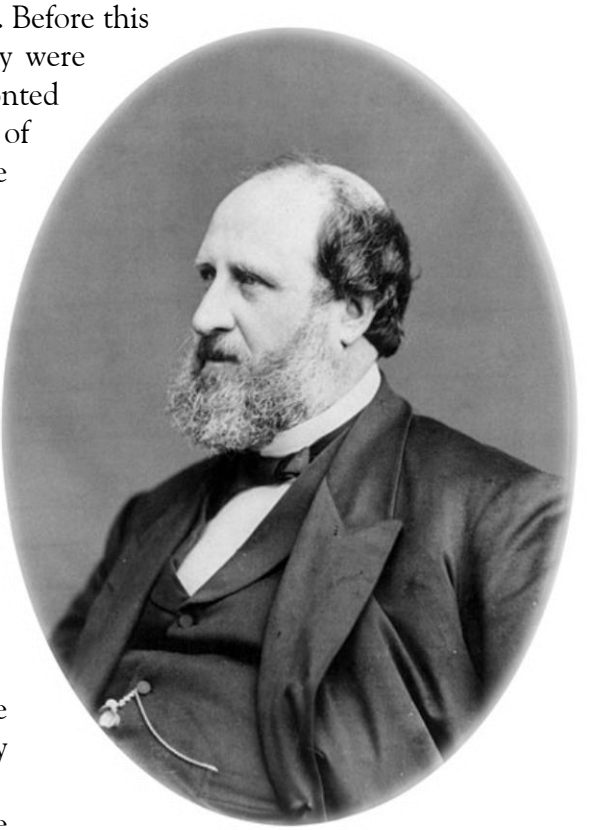
Photograph of Henry Wadsworth Longfellow
from *The Poems of Henry Wadsworth Longfellow*, 1893

Chapter 14

George Jones

1811-1891

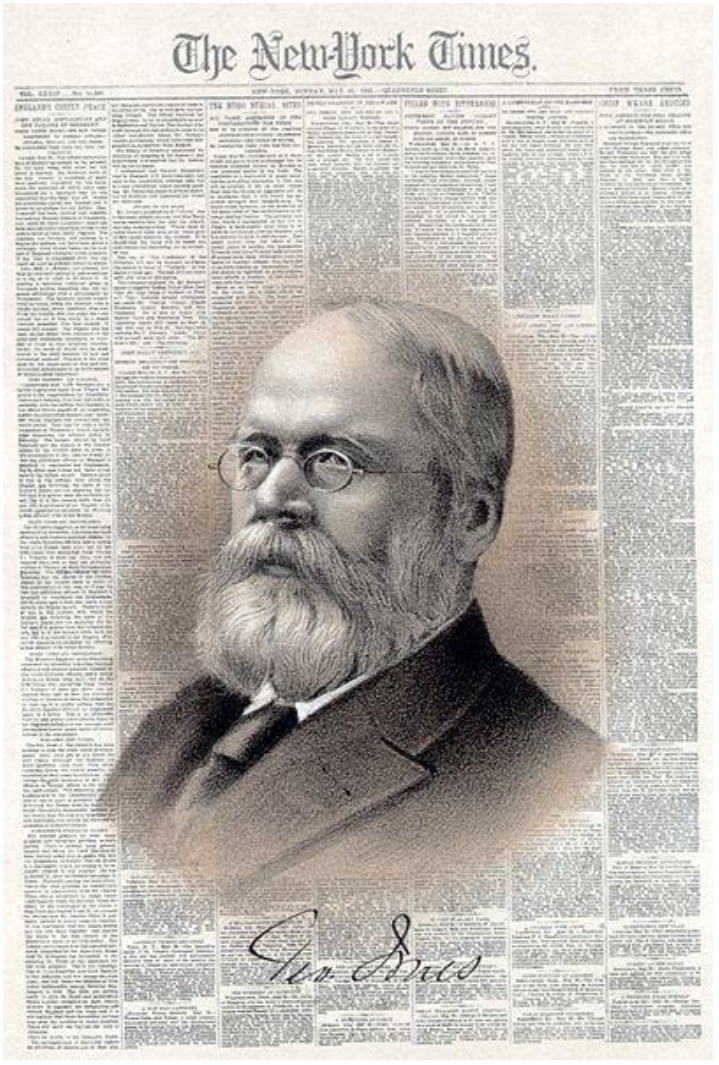
The Case of Mr. Tweed. — An actual case may serve to illustrate the danger to the people when public officers become thieves. William M. Tweed, an officer in the city of New York, and a few associates in office, began to take money from the public treasury. They used the money thus obtained to get control of the other offices of the city and of the state of New York. The control of more offices gave them more money. In a few years they controlled the chief offices of the city; they controlled the state legislature, and the chief courts of the city and the state. The possession of these great offices enabled them to steal more money, and to inflict a greater injury upon the people in a single year than it would be possible for common thieves to do in a hundred years. These bold criminals having control of the chief offices in a great state had formed a plan by which they might gain control of the government of the United States. Before this part of their plan could be carried into effect they were found out. It is said that when Mr. Tweed was confronted with the evidence of his guilt he asked in a tone of defiance, "What are you going to do about it?" The people answered this question by making him a fugitive from justice for a few years, and then, a prisoner till he died.



Photograph of William "Boss" Tweed

Mr. Tweed thought that he had so many judges and so many powerful friends who would befriend him, that he had so many millions of dollars in money which he had stolen from the people, and with which he could hire so many newspapers to speak well of him, that it was impossible for the people whose laws he had violated to do anything to punish him. But the people of New York were fortunate when the evidence of the guilt of Mr. Tweed came into the hands of an honest man, and they were still more fortunate that that honest man had command of a great daily paper.

The Honest Editor. — Mr. George Jones was the owner of the New York Times and the evidence of



From *Representative Journals of the United States,*
A. J. Kane (compiler)

the guilt of Mr. Tweed came into his possession. As soon as Mr. Tweed knew of this he sent an agent to Mr. Jones and offered to pay him five millions of dollars if he would not publish the evidence. The agent said to Mr. Jones, "With five millions of dollars you could go abroad and live like a prince." Mr. Jones replied, "If I should take your money I should after that always know that I was a villain." Mr. Jones published the evidence. The people arose in their might and drove the thieves from office.

Which is better — to be a poor man, and at the same time conscious of being honest and upright, or a rich man, who knows himself to be a villain? We know well that there is but one right answer to this question. Each of us ought to answer strongly and decidedly, "For me, I will be poor and honest rather than rich and dishonest." If at any time we find that we are in doubt as to which we would rather be, we may know at once that we have already begun to have the thoughts of a villain. A truly honest man never has any doubt about a question of that sort.

Why did the Good Citizens allow the Tweed Ring to Rob Them? — Before the evidences of guilt against the Tweed ring came into the hands of Mr. Jones, there were thousands of good citizens in the state of New York who believed that the people were being robbed by the officers of city and state. Many of these good people believed that the sort of crime that was being practised was more dangerous to their country than an invading army would be. They believed, too, that if they would only unite and put themselves to a little trouble, the wrong might be found out and corrected. Yet, knowing and believing all this, the habit of neglecting public duty was so strong that they allowed the crime to go on for years. This is one of the reasons why I think it is easier to teach a citizen to die for his country in a time of one sort of danger, than it is to get him to change a bad habit of neglecting public duty, when to do his duty would only cause him a very little trouble.

Chapter 15

Elizabeth Cady Stanton

1815-1902

The first meeting devoted to the rights of women that history records was held in the village of Seneca Falls, New York, in 1848, and chief among those to whom this meeting was due must be named that ardent advocate of the rights of her sex, Elizabeth Cady Stanton. This meeting was a notable event in the history of one half the human race, the weaker half in physical strength. It issued the earliest Declaration of Independence in the battle for the freedom of women. With it began a fight which has never since ceased. In this conflict many victories have been won, and there can be little doubt that the women reformers will win in the end all they have asked for.

Photograph of Elizabeth Cady Stanton and her daughter, Harriot

It was not social rights that these women demanded. Those they had. Society was their acknowledged field. What they asked for were legal and political rights. They wished to become the equals of man in all property and personal laws, and they wished to have the right to vote, to be made man's equal in choosing those who were to govern and make laws for the nation. This is what an ardent host of women had been seeking for more than half a century and Mrs. Stanton was a leader among those who first set the ball rolling. This being the case, a sketch of the life of this able woman belongs to our work.

Elizabeth Cady was born at Johnstown, New York, November 12, 1815. Her father, Judge Daniel Cady, was a well known and much respected man in that town, long an able lawyer and afterwards a judge in Fulton County, in which Johnstown is situated. The little girl, as

she grew up, delighted to be in her father's office, to listen to what was said there, and to chatter away in her own style when she had a chance. She was bright and quick, and would sit silent in her corner listening to those who came to see her father on business, and taking in with much intelligence what they said. When women came in and began to talk about how unjust the laws were towards them, the little girl listened more eagerly still. If they spoke angrily she grew angry for them, and if they complained sadly her sympathetic soul grew sad also.

Outside the office she had often been hurt to see how much attention was given to boys and how little to girls, and to find that girls did not "count for much" when their brothers were about. All this was a source of much mortification to the child, who could not see what made a boy better than a girl, and why he should have a better education and a superior chance in life. She resolved that she would show that she was the equal of any boy and had as much courage and ability as they had.

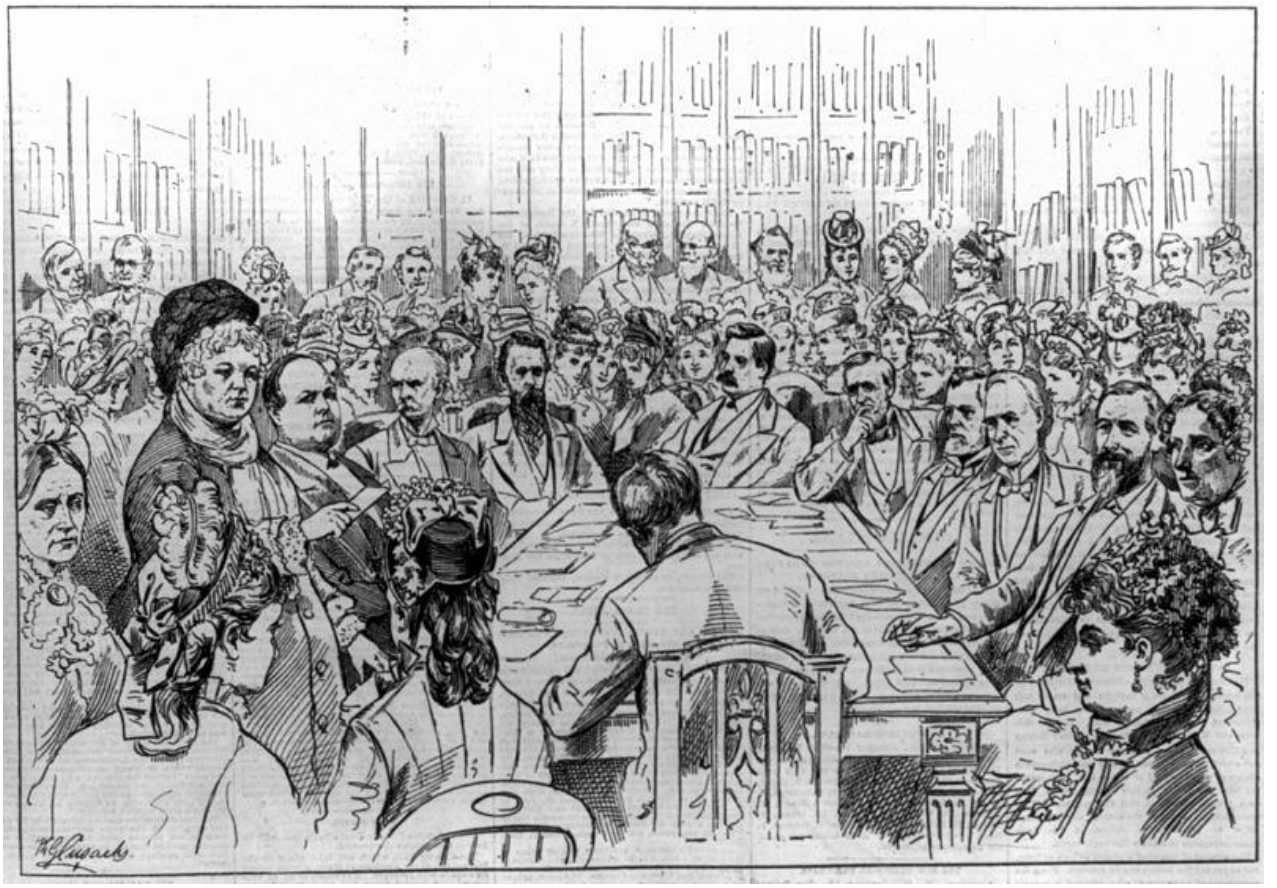
Photograph of Susan B. Anthony and Elizabeth Cady Stanton

Little Elizabeth had four sisters and one brother, and her father seemed to regard the latter more highly than all five of his girls. When his son died he could not be consoled, though he had all these girls left. "I wish you were a boy," he said with a sigh to Elizabeth. "Then I will be a boy and will do all my brother did," she replied. She looked on courage and learning as the points of boyish superiority, and she resolved to show she had these by learning to manage a horse and by studying Greek.

Determined that none of the boys should be ahead of her, she studied mathematics, Latin, and Greek, branches then usually thought beyond the scope of girls, and showed her ability by winning a Greek Testament as a prize for scholarship. No doubt her young heart swelled with joy at this triumph over the boys of her class. She afterwards graduated at the head of her class in the academy of Johnstown.

So far she had kept her word, but here her course was stayed. There was not a college in the country at that time that would take girl students, and her indignation and vexation were great to find that boys who had been much below her in the academy could go to college, while she, because she happened to be a girl, was kept out.

This seemed to her very unfair. And when she remembered what she had heard in her father's



Elizabeth Cady Stanton before the Senate Committee on Privileges and Elections,
illustration from *New York Daily Graphic,* 1878

office about the injustice of the laws towards women she grew to feel very bitter about the one-sided way in which the world was managed. No doubt she made up her mind even in those early days to fight against this injustice, for the fight which she afterwards began she never gave up while she lived. As for education, she managed to get a fair share of it outside of college halls, partly in a young lady's seminary, but more by a course of home study after her school life was ended.

She early began to take an interest in the affairs of the country, and became very earnest in the cause of reform, no matter what its field. In 1839 she married Henry B. Stanton, at that time an eloquent and popular lecturer on the subject of anti-slavery, one of the reforms of which she had become an earnest advocate.

Mr. Stanton was sent to London in 1840, as a delegate to the World's Anti-Slavery Convention, and his wife went with him, not as a delegate, but as a companion and warm sympathizer. She was not one of those women who were excluded from the meetings of the convention by the votes of its members, but she was in close touch with those who were, and very likely her indignation was again aroused by this treatment of women as if they were inferior to men.

One pleasant thing came to Mrs. Stanton through this visit to London: she made the acquaintance of the sweet and charming Lucretia Mott, this growing into an intimate friendship which

lasted through Mrs. Mott's life. They were doubtless in warm sympathy in many of their views, and especially in that to which Mrs. Stanton's thoughts were most strongly turned, the unjust laws and customs regarding women.

When she returned to America she had evidently made up her mind to devote her life to the cause of women, and resist, in all the forms it had taken, the ancient and obstinate tyranny against her sex. She was by no means alone in this. There were many of the same way of thinking. We may name Lucretia Mott, Susan B. Anthony, and Lucy Stone as well-known examples. But Mrs. Stanton was the most active and energetic in the work of calling together and organizing the advocates of Women's Rights, and it was very largely due to her that in July, 1848, the first Women's Rights convention in the world's history was called together at Seneca Falls.

What the members of this convention had in mind was to begin a contest to make women the equals of men before the law. Mrs. Stanton went farther than them all, demanding that they should include the suffrage for women among the rights they demanded.

This radical suggestion met with vigorous opposition. At first Mrs. Stanton stood almost alone in it, being supported only by one other delegate, Frederick Douglass. Her husband strongly objected to it as unwise and injudicious. Lucretia Mott did the same. Susan B. Anthony, whose activity in the cause began later, at first looked upon the demand for the ballot as ridiculous. Mrs. Stanton and Douglass, her one supporter, were in face of a hard fight.

Photograph of Elizabeth Cady Stanton

But she was in dead earnest, and she did what she had never done before: she stated her views in public, and with a power of oratory she did not know she possessed. Douglass, an able and eloquent speaker, strongly supported her, and between them they won vote after vote, until Mrs. Stanton had carried all her resolutions, including that in favor of woman suffrage.

The report of what was done in this convention excited great attention throughout the country. To demand the suffrage for women! It was preposterous! Anything so utterly absurd had never been heard of before. Such was the tone of most of the papers that deigned to consider it seriously, but the bulk of the newspapers looked upon it as only a matter for laughter and editorial humor.

This reception had a discouraging effect upon many, but not upon Mrs. Stanton. She set to work vigorously using her new-found powers of oratory and lecturing in all directions. Two years later Susan B. Anthony, who had ridiculed the demand for the ballot on first hearing of it, changed her views, joined Mrs. Stanton as a friend and fellow-worker, and the two devoted their lives to the advocacy of the cause.

In 1866 Mrs. Stanton, then residing in New York City, offered herself as a candidate for Congress to the 8th district voters. Out of 23,000 votes cast she got just 24. In 1868 she, with Miss Anthony and others, started The Revolution, the pioneer Women's Rights journal. She was one of its editors for the few years before failure met it. It was finally merged in The Liberal Christian, a Unitarian paper. She afterwards lectured for many years in her chosen field. A ready and happy speaker, her labors went far to advance the interests of the cause she had at heart. In addition, she, with others, compiled a voluminous "History of Woman Suffrage" (three volumes of 1000 pages each), made up of documentary evidence and biographical sketches. In 1883, being on a visit to Europe, she held conferences with John Bright and others upon her favorite topic.

The social and political reforms advocated by Mrs. Stanton made remarkable progress during the more than fifty years which she devoted to them. The property rights of women have been placed on a level with those of men in some States, and have everywhere advanced in the direction of equal treatment of the sexes. As regards the demand for the ballot, the work in which she was the pioneer, its success has been very encouraging. To-day women have the full right of voting in four of the States, and in many others can vote in school-board elections and other local matters. And it has spread to other lands, especially to Australia, in which women vote on equal terms with men.

Mrs. Stanton had the unique distinction of being able to look back to the day in which she stood alone among her sex as an advocate of woman suffrage, her only supporter being a man of negro race, Frederick Douglass, and living to see it adopted in four of the American States and in island realms afar. She was a conqueror in her life's fight when death came to her, October 26, 1902.

Chapter 16

Henry David Thoreau

1817–1862

Photograph of Henry David Thoreau

Concord, Massachusetts, is one of the New England towns that everybody likes to visit. When tourists reach Boston they usually make a point of going to Concord because they have read about its famous battle ground, where the first British soldiers fell in the great Revolutionary War, and because they want to see the very house in which Louisa May Alcott wrote *Little Women*, and the homes of Hawthorne, Emerson, and Thoreau.

Henry Thoreau, who was born in Concord, loved the town so well that he spent most of his life tramping through its fields and forests. You might say the business of his life was walking, for he never had any real profession, and he walked from four to eight hours a day — across lots, too. He used to say roads were made for horses and business men. "Why, what would become of us," he would ask, "if we walked only in a garden or a mall? What should we see?"

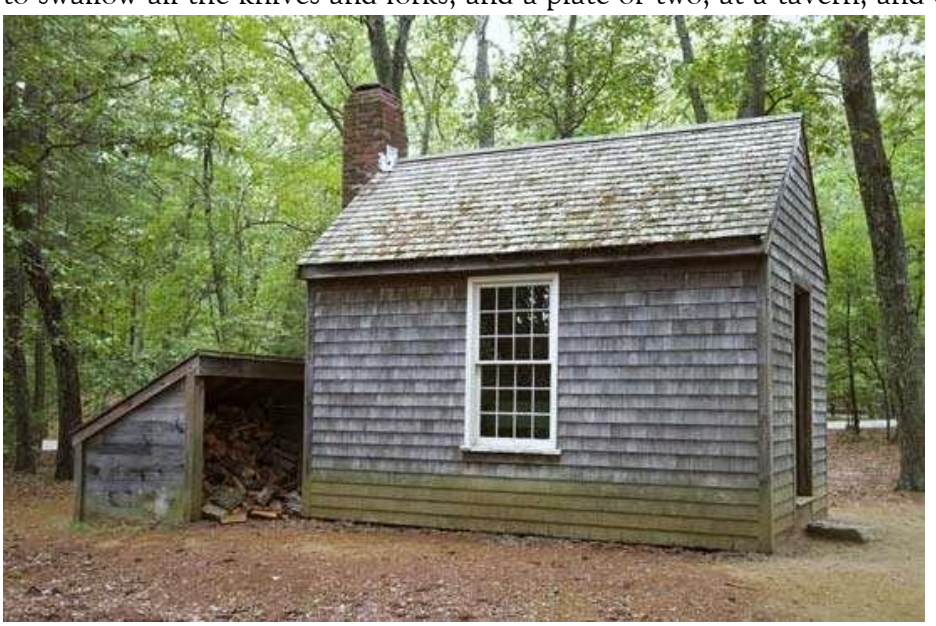
When Mr. Thoreau started out for a long saunter in the woods, he wore a wide-brimmed straw hat, stout shoes, and strong gray trousers that would not show spots too easily, and would stand tree-climbing. Under his arm he usually carried an old music book in which to press plants, and in his pocket he kept a pencil, his diary, a microscope, a jack-knife, and a ball of twine. He and a friend, William Ellery Channing, agreed that a week's camping was more fun than all the books in the world. Once they tried tramping and camping in Canada. They wore overalls most of the time, and wishing not to be bothered with trunks or suitcases, they tied a few changes of clothing in bundles, and each man took an umbrella. They called themselves "Knights of the Umbrella and Bundle."

The Thoreaus were rather a prominent family in Concord. There were six of them, all told. The

father, Mr. John Thoreau, was a pencil-maker. A hundred years ago this was a trade that brought good money. Mr. Thoreau could turn out a great many pencils because all the children helped him make them. He was a small man, quite deaf, and very shy. He did not talk much. But his wife, Mrs. Cynthia Thoreau, who was half a head taller than he, could, and did, talk enough for both. She was handsome, wide-awake, and had a strong, sweet, singing voice. She took part in all the merry-makings and also in all the church affairs in Concord. She was bitter against slavery. She used to call meetings at her house to talk over ways of putting an end to it, and when slaves ran away from the South, she often hid them in her home and helped them get further away. She knew a great deal about nature, bought a good many books for her children, and was determined that they should have good educations. Henry, his brother John, and the two sisters, Helen and Sophia, all taught school. And Helen helped Henry earn money to go to Harvard College.

The whole Thoreau family were proud of Henry, and his mother never tired of telling what fine letters and essays he could write. She and Sophia went one day to call on an aunt of Ralph Waldo Emerson's, Miss Mary Emerson, who was eighty-four. Mrs. Thoreau began to talk about Henry right away. Miss Emerson nodded her head and said: "Very true," now and then, but kept her eyes shut every minute her callers stayed. When they rose to go, Miss Emerson said: "Perhaps you noticed, Mrs. Thoreau, that I kept my eyes closed during your call. I did so because I did not wish to look on the ribbons you are wearing — so unsuitable for a child of God and a woman of your years!" Poor Mrs. Thoreau was seventy, and her bonnet was as bright and colorful as it had been possible to buy, for she loved rich colors and silks and velvets. She did not mind Miss Emerson's rebuke a bit, but Sophia stuffed her handkerchief in her mouth to keep from laughing aloud.

When Henry was a boy, he used to delight in his Uncle Charles Dunbar, who paid the family a visit every year. Mr. Dunbar was not a worker like his sister, Cynthia Thoreau. He did not have any business but drifted about the country, living by his wits. One of his favorite tricks was to pretend to swallow all the knives and forks, and a plate or two, at a tavern, and offer to give them back if the landlord would not charge for his dinner. He was a great wrestler and could do sleight-of-hand tricks. Henry used to watch him and ask question after question, and he learned how to do a few tricks himself.



The replica of Henry David Thoreau's cabin at Walden Pond

Just as his mother hoped, when Henry grew up, he decided to be a writer. To be sure he taught school a while and gave lectures which people did not understand very well, for he

Site of Henry David Thoreau's house at Walden Pond

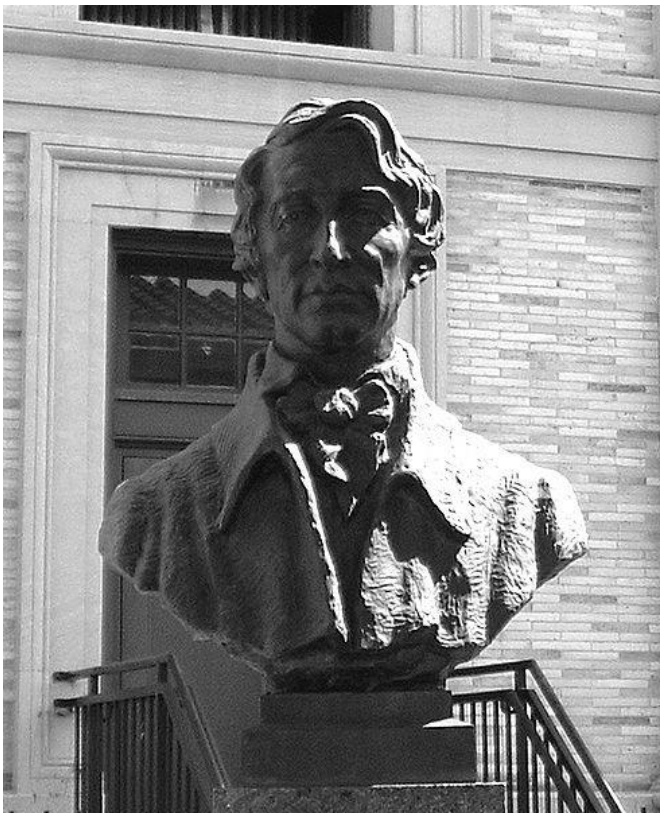
had strange ideas for those times, but he wrote page after page, sitting in the woods, and liked that better than all else. He first wrote an account of a week's trip on the Concord and Merrimac rivers. This book did not sell very well, and one time he carried home from the publishers seven hundred copies that no one would buy, saying: "Well, I have quite a respectably sized library now — all my own writing, too!"

But four or five years later Thoreau built a hut on the shore of Walden Pond and lived there all alone, like a hermit, for two years. He did this for two reasons: because he wanted to prove that people spend too much time and money on food and clothes and because he wanted a perfectly quiet chance, with no neighbors running in, to write more books. He said he spent but one hundred dollars a year while he lived in this hut. He raised beans on his land, ate wild berries, caught fish — and "went visiting" now and then. I should not wonder if he often took a second helping of food, when visiting. To buy his woodsman's clothes and a few necessities, he planted gardens, painted houses, and cut wood for his friends. He wrote a book called Walden which tells all about these seven or eight hundred days he went a-hermiting, and after that, several other books. These sold very well. In all of them he was rather fond of boasting that he had found the only sensible way to live. "I am for simple living," he would say, and always was declaring "I love to be ALONE!" But sometimes people passing by the pond used to hear him whistling old ballads, or playing very softly and beautifully on a flute, and they thought he sounded lonely. Although he makes you feel, when you read his books, that it is fine to roam the fields, sniffing the wild grape and the yellow violets, and that no one can find pleasure like the man who rows, and skates, and swims, and tills the soil, yet the question is bound to come: "Is a man all alone in a hut any better off than a jolly father in a big house, playing games with his children?"

Let me tell you, too, that after all Thoreau's talk about wanting to be alone, the last year he lived in the hut, he used to steal off, just at twilight, to a neighbor's house where there were little children. While they curled up on a rug, in front of the open fire, he would draw near in a big rocking-chair and sit for an hour or more telling them stories of his childhood. He would pop corn, make whistles for them with his jack-knife, or, best of all, do some of the juggling tricks, which he had learned, as a boy, from his uncle Charles. And one day he appeared at the door with a hay-rack to give them a ride. He had covered the bottom of the rack with deep hay, then spread a buffalo robe over the hay to make it comfortable. He sat on a board placed across the front and drove the

span of horses, and as he drove, he told funny stories and sang songs till the children thought a hermit was a pretty good sort of a chum.

The hut went to pieces years ago, and only a pile of stones marks the place where it stood, but if you go to Concord, you will find a pleasant street named for Thoreau, and the house in which he lived the last twelve years of his life, half hidden by tall trees. And also you can read his books and learn how he enjoyed the woods and what beautiful things he found in them.



Bust of Henry David Thoreau, Bronx Community College
Hall of Great Americans, New York, New York

Chapter 17

Maria Mitchell

1818–1889

In the quiet, picturesque island of Nantucket, in a simple home, lived William and Lydia Mitchell with their family of ten children. William had been a school-teacher, beginning when he was eighteen years of age, and receiving two dollars a week in winter, while in summer he kept soul and body together by working on a small farm, and fishing.

In this impecunious condition he had fallen in love with and married Lydia Coleman, a true-hearted Quaker girl, a descendant of Benjamin Franklin, one singularly fitted to help him make his way in life. She was quick, intelligent, and attractive in her usual dress of white, and was the clerk of the Friends' meeting where he attended. She was enthusiastic in reading, becoming librarian successively of two circulating libraries, till she had read every book upon the shelves, and then in the evenings repeating what she had read to her associates, her young lover among them.

When they were married, they had nothing but warm hearts and willing hands to work together. After a time William joined his father in converting a ship-load of whale oil into soap, and then a little money was made; but at the end of seven years he went back to school-teaching because he loved the work. At first he had charge of a fine grammar school established at Nantucket, and later, of a school of his own.

Maria Mitchell, H. Dassell

Into this school came his third child, Maria, shy and retiring, with all her mother's love of reading. Faithful at home, with, as she says, "an endless washing of dishes," not to be wondered at where there were ten little folks, she was not less faithful at school. The teacher could not help seeing that his little daughter had a mind which would well repay all the time he could spend upon it.

While he was a good school-teacher, he was an equally good student of nature, born with a love of the heavens above him. When eight years old, his father called him to the door to look at the planet Saturn, and from that time

the boy calculated his age from the position of the planet, year by year. Always striving to improve himself, when he became a man, he built a small observatory upon his own land, that he might study the stars. He was thus enabled to earn one hundred dollars a year in the work of the United States Coast Survey. Teaching at two dollars a week, and fishing, could not always cramp a man of such aspiring mind.

Brought up beside the sea, he was as broad as the sea in his thought and true nobility of character. He could see no reason why his daughters should not be just as well educated as his sons. He therefore taught Maria the same as his boys, giving her especial drill in navigation. Perhaps it is not strange that after such teaching, his daughter could have no taste for making worsted work or Kensington stitches. She often says to this day, "A woman might be learning seven languages while she is learning fancy work," and there is little doubt that the seven languages would make her seven times more valuable as a wife and mother. If teaching navigation to girls would give us a thousand Maria Mitchells in this country, by all means let it be taught.

Maria left the public school at sixteen, and for a year attended a private school; then, loving mathematics, and being deeply interested in her father's studies, she became at seventeen his helper in the work of the Coast Survey. This astronomical labor brought Professors Agassiz, Bache, and other noted men to the quiet Mitchell home, and thus the girl heard the stimulating conversation of superior minds.

But the family needed more money. Though Mr. Mitchell wrote articles for *Silliman's Journal,* and delivered an able course of lectures before a Boston society of which Daniel Webster was president, scientific study did not put many dollars in a man's pocket. An elder sister was earning three hundred dollars yearly by teaching, and Maria felt that she too must help more largely to share the family burdens. She was offered the position of librarian at the Nantucket library, with a salary of sixty dollars the first year, and seventy-five the second. While a dollar and twenty cents a week seemed very little, there would be much time for study, for the small island did not afford a continuous stream of readers. She accepted the position, and for twenty years, till youth had been lost in middle life, Maria Mitchell worked for one hundred dollars a year, studying on, that she might do her noble work in the world.

Did not she who loved nature, long for the open air and the blue sky, and for some days of leisure which so many girls thoughtlessly waste? Yes, doubtless. However, the laws of life are as rigid as mathematics. A person cannot idle away the hours and come to prominence. No great singer, no great artist, no great scientist, comes to honor without continuous labor. Society devotees are heard of only for a day or a year, while those who develop minds and ennoble hearts have lasting remembrance.

Miss Mitchell says, "I was born of only ordinary capacity, but of extraordinary persistency," and herein is the secret of a great life. She did not dabble in French or music or painting and give it up; she went steadily on to success. Did she neglect home duties? Never. She knit stockings a yard long for her aged father till his death, usually studying while she knit. To those who learn to be industrious early in life, idleness is never enjoyable.

There was another secret of Miss Mitchell's success. She read good books early in life. She says: "We always had books, and were bookish people. There was a public library in Nantucket before I was born. It was not a free library, but we always paid the subscription of one dollar per annum, and

always read and studied from it. I remember among its volumes Hannah More's books and Rollin's *Ancient History*. I remember too that Charles Folger, the present Secretary of the Treasury, and I had both read this latter work through before we were ten years old, though neither of us spoke of it to the other until a later period."

All this study had made Miss Mitchell a superior woman. It was not strange, therefore, that fame should come to her. One autumn night, October, 1847, she was gazing through the telescope, as usual, when, lo! she was startled to perceive an unknown comet. She at once told her father, who thus wrote to Professor William C. Bond, director of the Observatory at Cambridge: —

> My Dear Friend, — I write now merely to say that Maria discovered a telescopic comet at half-past ten on the evening of the first instant, at that hour nearly above Polaris five degrees. Last evening it had advanced westerly; this evening still further, and nearing the pole. It does not bear illumination. Maria has obtained its right ascension and declination, and will not suffer me to announce it. Pray tell me whether it is one of Georgi's, and whether it has been seen by anybody. Maria supposes it may be an old story. If quite convenient, just drop a line to her; it will oblige me much. I expect to leave home in a day or two, and shall be in Boston next week, and I would like to have her hear from you before I can meet you. I hope it will not give thee much trouble amidst thy close engagements. Our regards are to all of you most truly.
>
> William Mitchell.

The answer showed that Miss Mitchell had indeed made a new discovery. Frederick VI., King of Denmark, had, sixteen years before, offered a gold medal of the value of twenty ducats to whoever should discover a telescopic comet. That no mistake might be made as to the real discoverer, the condition was made that word be sent at once to the Astronomer Royal of England. This the Mitchells had not done, on account of their isolated position. Hon. Edward Everett, then President of Harvard College, wrote to the American Minister at the Danish Court, who in turn presented the evidence to the King. "It would gratify me," said Mr. Mitchell, "that this generous monarch should know that there is a love of science even in this, to him, remote corner of the earth."

The medal was at last awarded, and the woman astronomer of Nantucket found herself in the scientific journals and in the press as the discoverer of "Miss Mitchell's Comet." Another had been added to the list of Mary Somervilles and Caroline Herschels. Perhaps there was additional zest now in the mathematical work in the Coast Survey. She also assisted in compiling the *American Nautical Almanac,* and wrote for the scientific periodicals. Did she break down from her unusual brain work? Oh, no! Probably astronomical work was not nearly so hard as her mother's — the care of a house and ten children!

For ten years more Miss Mitchell worked in the library, and in studying the heavens. But she had longed to see the observatories of Europe, and the great minds outside their quiet island. Therefore, in 1857, she visited England, and was at once welcomed to the most learned circles. Brains always find open doors. Had she been rich or beautiful simply, Sir John Herschel, and Lady Herschell as well, would not have reached out both hands, and said, "You are always welcome at this house," and given her some of his own calculations and some of his Aunt Caroline's writing. Had she been rich or handsome simply, Alexander Von Humboldt would not have taken her to his home, and,

seating himself beside her on the sofa, talked, as she says, "on all manner of subjects, and on all varieties of people. He spoke of Kansas, India, China, observatories; of Bache, Maury, Gould, Ticknor, Buchanan, Jefferson, Hamilton, Brunow, Peters, Encke, Airy, Leverrier, Mrs. Somerville, and a host of others."

What if he had said these things to some women who go abroad! It is safe for women who travel to read widely, for ignorance is quickly detected. Miss Mitchell said of Humboldt: "He is handsome — his hair is thin and white, his eyes very blue. He is a little deaf, and so is Mrs. Somerville. He asked me what instruments I had, and what I was doing; and when I told him that I was interested in the variable stars, he said I must go to Bonn and see Agelander."

There was no end of courtesies to the scholarly woman. Professor Adams, of Cambridge, who, with his charming wife, years afterward helped to make our own visit to the University a delight, showed her the spot on which he made his computations for Neptune, which he discovered at the same time as Leverrier. Sir George Airy, the Astronomer Royal of England, wrote to Leverrier in Paris to announce her coming. When they met, she said, "His English was worse than my French."

Maria Mitchell, from an 1897 publication

Later she visited Florence, where she met, several times, Mrs. Somerville, who, she says, "talks with all the readiness and clearness of a man," and is still "very gentle and womanly, without the least pretence or the least coldness." She gave Miss Mitchell two of her books, and desired a photographed star sent to Florence. "She had never heard of its being done, and saw at once the importance of such a step." She said with her Scotch accent, "Miss Mitchell, ye have done yeself great credit."

In Rome she saw much of the Hawthornes, of Miss Bremer, who was visiting there, and of the artists. From here she went to Venice, Vienna, and Berlin, where she met Encke, the astronomer, who took her to see the wedding presents of the Princess Royal.

Mrs. Julia Ward Howe, in an admirable sketch of Miss Mitchell, tells how the practical woman, with her love of republican institutions, was impressed. "The presents were in two rooms," says Miss Mitchell, "ticketed and numbered, and a catalogue of them sold. All the manufacturing companies availed themselves of the opportunity to advertise their commodities, I suppose, as she had presents of all kinds. What she will do with sixty albums I can't see, but I can understand the use of two clothes-lines, because she can lend one to her mother, who must have a large Monday's wash!"

After a year. Miss Mitchell returned to her simple Nantucket home, as devoted to her parents and her scientific work as ever. Two years afterward, in 1860, her good mother died, and a year later, desiring to be near Boston, the family removed to Lynn. Here Miss Mitchell purchased a small house for sixteen hundred and fifty dollars. From her yearly salary of one hundred dollars, and what she could earn in her government work, she had saved enough to buy a home for her father! The rule is that the fathers wear themselves out for daughters; the rule was reversed in this case.

Miss Mitchell now earned five hundred dollars yearly for her government computations, while her father received a pension of three hundred more for his efficient services. Five years thus passed quietly and comfortably. Meanwhile another life was carrying out its cherished plan, and Miss Mitchell, unknowingly, was to have an important part in it. Soon after the Revolutionary War there came to this country an English wool-grower and his family, and settled on a little farm near the Hudson River. The mother, a hard-working and intelligent woman, was eager in her help toward earning a living, and would drive the farm-wagon to market, with butter and eggs, and fowls, while her seven-year-old boy sat beside her. To increase the income some English ale was brewed. The lad grew up with an aversion to making beer, and when fourteen, his father insisting that he should enter the business, his mother helped him to run away. Tying all his worldly possessions, a shirt and pair of stockings, in a cotton handkerchief, the mother and her boy walked eight miles below Poughkeepsie, when, giving him all the money she had, seventy-five cents, she kissed him, and with tears in her eyes saw him cross the ferry and land safely on the other side. He trudged on till a place was found in a country store, and here, for five years, he worked honestly and industriously, coming home to his now reconciled father with one hundred and fifty dollars in his pocket.

Changes had taken place. The father's brewery had burned, the oldest son had been killed in attempting to save something from the wreck, all were poorer than ever, and there seemed nothing before the boy of nineteen but to help support the parents, his two unmarried sisters, and two younger brothers. Whether he had the old dislike for the ale business or not, he saw therein a means of support, and adopted it. The world had not then thought so much about the misery which intoxicants cause, and had not learned that we are better off without stimulants than with them.

Every day the young man worked in his brewery, and in the evening till midnight tended a small oyster house, which he had opened. Two years later, an Englishman who had seen Matthew Vassar's untiring industry and honesty, offered to furnish all the capital which he needed. The long, hard road of poverty had opened at last into a field of plenty. Henceforward, while there was to be work and economy, there was to be continued prosperity, and finally, great wealth.

Realizing his lack of early education, he began to improve himself by reading science, art, history, poetry, and the Bible. He travelled in Europe, and being a close observer, was a constant learner.

One day, standing by the great London hospital, built by Thomas Guy, a relative, and endowed by him with over a million dollars, Mr. Vassar read these words on the pedestal of the bronze statue: —

SOLE FOUNDER OF THE HOSPITAL
IN HIS LIFETIME.

The last three words left a deep impression on his mind. He had no children. He desired to leave his money where it would be of permanent value to the world. He debated many plans in his own

mind. It is said that his niece, a hard-working teacher, Lydia Booth, finally influenced him to his grand decision.

There was no real college for women in the land. He talked the matter over with his friends, but they were full of discouragements. "Women will never desire college training," said some. "They will be ruined in health, if they attempt it," said others. "Science is not needed by women; classical education is not needed; they must have something appropriate to their sphere," was constantly reiterated. Some wise heads thought they knew just what that education should be, and just what were the limits of woman's sphere; but Matthew Vassar had his own thoughts.

Calling together, Feb. 26, 1861, some twenty or thirty of the men in the State most conversant with educational matters, the white-haired man, now nearly seventy, laid his hand upon a round tin box, labelled "Vassar College Papers," containing four hundred thousand dollars in bonds and securities, and said: "It has long been my desire, after suitably providing for those of my kindred who have claims upon me, to make such a disposition of my means as should best honor God and benefit my fellow-men. At different periods I have regarded various plans with favor; but these have all been dismissed one after another, until the subject of erecting and endowing a college for the education of young women was presented for my consideration. The novelty, grandeur, and benignity of the idea arrested my attention.

"It occurred to me that woman, having received from the Creator the same intellectual constitution as man, has the same right as man to intellectual culture and development.

"I considered that the mothers of a country mould its citizens, determine its institutions, and shape its destiny.

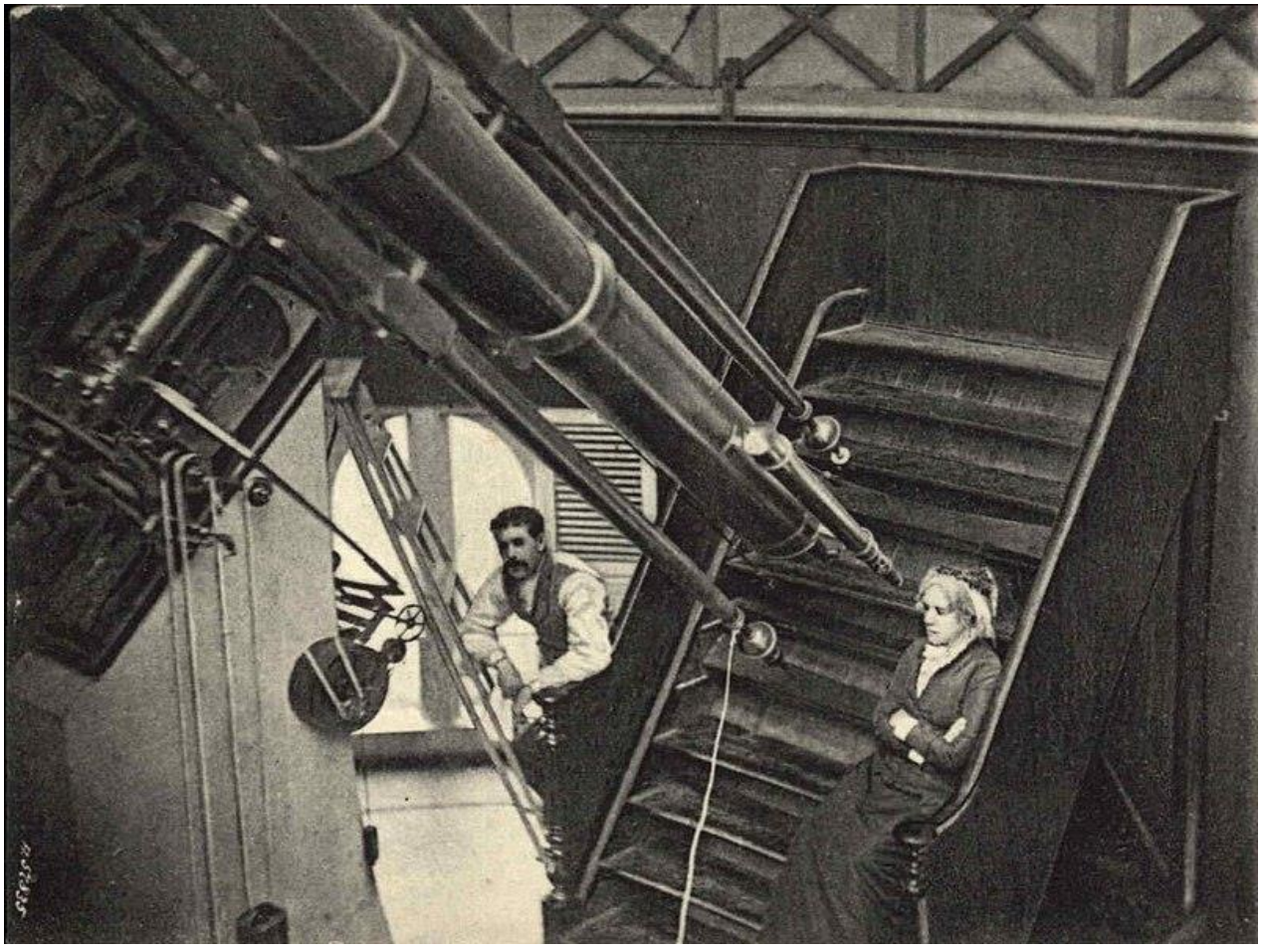
"It has also seemed to me that if woman was properly educated, some new avenues of useful and honorable employment, in entire harmony with the gentleness and modesty of her sex, might be opened to her.

"It further appeared, there is not in our country, there is not in the world, so far as known, a single fully endowed institution for the education of women. … I have come to the conclusion that the establishment and endowment of a COLLEGE FOR THE EDUCATION OF YOUNG WOMEN is a work which will satisfy my highest aspirations, and will be, under God, a rich blessing to this city and State, to our country and the world.

"It is my hope to be the instrument in the hands of Providence, of founding and perpetuating an institution *which shall accomplish for young women what our colleges are accomplishing for young men.*"

For four years Matthew Vassar watched the great buildings take form and shape in the midst of two hundred acres of lake and river and green sward, near Poughkeepsie; the main building, five hundred feet long, two hundred broad, and five stories high; the museum of natural history, with school of art and library; the great observatory, three stories high, furnished with the then third largest telescope in the country.

In 1865 Vassar College was opened, and three hundred and fifty students came pouring in from all parts of the land. Girls, after all, did desire an education equal to that of young men. Matthew Vassar was right. His joy seemed complete. He visited the college daily, and always received the heartiest welcome. Each year his birthday was celebrated as "Founder's Day." On one of these occasions he said: "This is almost more happiness than I can bear. This one day more than repays



Photograph of Prof. Maria Mitchell in the Vassar College Observatory

me for all I have done." An able and noble man, John Howard Raymond, was chosen president.

Mr. Vassar lived but three years after his beloved institution was opened. June 23, 1868, the day before commencement, he had called the members of the Board around him to listen to his customary address. Suddenly, when he had nearly finished, his voice ceased, the paper dropped from his hand, and — he was dead! His last gifts amounted to over five hundred thousand dollars, making in all $989,122.00 for the college. The poor lad wrought as he had hoped, a blessing "to the country and the world." His nephews, Matthew Vassar, Jr., and John Guy Vassar, have given over one hundred and forty thousand dollars.

After the observatory was completed, there was but one wish as to who should occupy it; of course, the person desired was Maria Mitchell. She hesitated to accept the position. Her father was seventy and needed her care, but he said, "Go, and I will go with you." So she left her Lynn home for the arduous position of a teacher. For four years Mr. Mitchell lived to enjoy the enthusiastic work of his gifted daughter. He said, "Among the teachers and pupils I have made acquaintances that a prince might covet."

Miss Mitchell makes the observatory her home. Here are her books, her pictures, her great astronomical clock, and a bust of Mrs. Somerville, the gift of Frances Power Cobbe. Here for twenty years

she has helped to make Vassar College known and honored both at home and abroad. Hundreds have been drawn thither by her name and fame. A friend of mine who went, intending to stay two years, remained five, for her admiration of and enjoyment in Miss Mitchell. She says: "She is one of the few genuine persons I have ever known. There is not one particle of deceit about her. For girls who accomplish something, she has great respect; for idlers, none. She has no sentimentality, but much wit and common sense. No one can be long under her teaching without learning dignity of manner and self-reliance."

She dresses simply, in black or gray somewhat after the fashion of her Quaker ancestors. Once when urging economy upon the girls, she said, "All the clothing I have on cost but seventeen dollars, and four suits would last each of you a year." There was a quiet smile, but no audible expression of a purpose to adopt Miss Mitchell's style of dress.

The pupils greatly honor and love the undemonstrative woman, who, they well know, would make any sacrifices for their well-being. Each week the informal gatherings at her rooms, where various useful topics are discussed, are eagerly looked forward to. Chief of all, Miss Mitchell's own bright and sensible talk is enjoyed. Her "dome parties," held yearly in June, under the great dome of the observatory, with pupils coming back from all over the country, original poems read and songs sung, are among the joys of college life.

All these years the astronomer's fame has steadily increased. In 1868, in the great meteoric shower, she and her pupils recorded the paths of four thousand meteors, and gave valuable data of their height above the earth. In the summer of 1869 she joined the astronomers who went to Burlington, Iowa, to observe the total eclipse of the sun, Aug. 7. Her observations on the transit of Venus were also valuable. She has written much on the *Satellites of Saturn,* and has prepared a work on the *Satellites of Jupiter*.

In 1873 she again visited Europe, spending some time with the family of the Russian astronomer, Professor Struve, at the Imperial Observatory at Pultowa.

She is now sixty-eight, her white hair showing that she is growing older. She is an honor to her sex, a striking example of what a quiet country girl can accomplish without money or fortuitous circumstances.

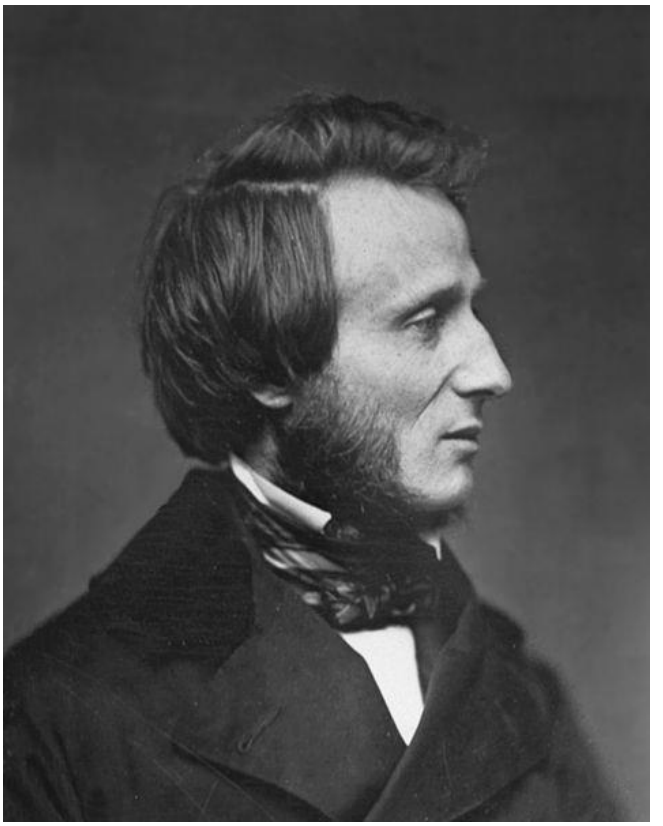
Chapter 18

Cyrus W. Field

1819-1892

The work done by Morse in inventing the electric telegraph and stretching it over the land was but half the battle to be fought. He had made the continents a pathway for thought, but the ocean remained to be conquered also, a channel needed to be made through the depths of the seas for the passage of human thought, and the invader of this watery realm came in the person of Cyrus West Field.

This man of enterprise, who was born at Stockbridge, Massachusetts, November 30, 1819, was a retired merchant of thirty-five years of age when the movement of events first brought him into the field of telegraph invention. He was one of four brothers who became notable in various ways. One of these, David Dudley Field, became prominent in the law, and was president of a commission to digest the political, penal, and civil codes of law in New York. A second, Stephen J. Field, became Chief Justice of the Supreme Court of California, and afterwards an Associate Justice in the Supreme Court of the United States. A third, Henry M. Field, was prominent as a clergyman and author, and editor of The New York Evangelist. The fourth, by far the most famous of them all, is the one with whom we are specially concerned. He entered into business, made a fortune, and retired to enjoy it while still young.



Photograph of Cyrus West Field

This was at the time that the newest great discovery, the electric telegraph, was becoming widely known, being laid rapidly in all directions, and men had not yet ceased to wonder at its marvellous powers. In 1854 a number of enterprising persons became associated in an ambitious scheme. They undertook to build a telegraph line across the island of Newfoundland, and connect it with a line of fast steamers from the eastern side of that island, arguing that these could reach Ireland

Mrs. Cyrus West Field (Mary Bryan Stone),
Oliver Ingraham Lay

in five days, and the news of Europe be brought to America within a week.

These men had ideas, but they lacked cash. They wanted a man with money to help them. After trying to build the line and failing for want of funds, they looked around for a suitable man of wealth. Some of them knew of Mr. Field as a man who had built up a big business from a small beginning, was able, rich, and enterprising, and was out of business and with leisure to look into their scheme.

The plan was strongly laid before the retired merchant. He was assured it would be of great benefit to the country and be certain to pay. He promised to think of it, and as he sat in his library, slowly turning a globe and looking for the situation of Newfoundland and its distance from Ireland, the thought came to him: "Why not carry the line across the ocean?"

It was one of those illuminating thoughts which lie at the basis of most great enterprises. Field turned it over in his head, studied what had been done with the telegraph, and became daily more assured that it could be accomplished. It had some warrant in preceding efforts. Morse had suggested an Atlantic telegraph in 1842, before his first land line was laid, and in 1852 a submarine cable had been laid from Dover to Ostend, thus connecting England with the continent of Europe.

The idea conceived, Field lost no time in putting it in practice. In 1855 he obtained from the legislature of Newfoundland the sole right for fifty years to land telegraph cables, from either Europe or America, on that island. He was the man for the work, full of energy, enterprise, and enthusiasm. He formed a stock company at once, and followed this by organizing in London the "Atlantic Telegraph Company." His faith in the project was shown by his furnishing one-fourth of the capital himself. So devoted was he to the work that he crossed the ocean nearly thirty times before it was finally carried out.

The project called for great care in the preparation of the cable. It needed to be made strong and flexible and to be thoroughly insulated. A mere pin-hole in its entire length might let the electric current escape. The centre steel wire was wound round with small copper wires, and these were covered with several coatings of gutta-percha and Manila hemp. Gutta-percha is a nonconductor of electricity, and was intended to prevent the current from leaving the interior wires. Outside of all these, eighteen strands of iron wires were laid.

The submarine lines already laid served as examples. In addition to that between England and France, one was now working from Newfoundland to the mainland of America. These short ones

were successful; why should not a longer one be? Field's enthusiasm induced some wealthy men to put money into the enterprise, and in 1857 a wire was ready and an expedition set out to lay it on the ocean bottom, ships being provided by the American and English governments. This first attempt proved a failure, as did a second one in the spring of the following year. But in August of that year a third trial was made and this time with success. For the first time in history the thoughts of man were sent in an instant of time under and across the ocean.

Those who lived in those days will remember the vast interest, the great excitement, it produced. There were celebrations on both sides of the water. Messages passed between President Buchanan and Queen Victoria, words of greeting and congratulation. They passed very slowly, but they passed. It took sixty-seven minutes to send the queen's message of ninety words. The current was distressingly feeble. It gradually failed and ceased to work. The sending of messages across the ocean was at an end.

Field now found himself in a quandary. These experiments had been very costly, and the capitalists began to think that there was enough of their money lying on the bottom of the ocean. They tied their purse strings, and the enterprising projector found money for a new cable very hard to get. "It worked once. It will work again," he argued. "It failed once, it may fail again," they answered. They had the best of the argument, for they had the money and the answer both.

Then came on the American Civil War, which put an end to the enterprise for four long years. But Cyrus Field did not despair. All through the war he kept at it, arguing, persuading, beseeching, and in time the money for a new and stronger cable came in. In August, 1865, the new cable was ready. It was much superior to that of seven years earlier. Two ships had been used in 1858, and the wires spliced in mid-ocean. Now only one, the huge "Great Eastern," was employed. On her decks the whole length of cable, 2300 miles, weighing 4000 tons, was laid, and she steamed away from Valentia, Ireland, on her difficult task. All went well until she was 1067 miles out, when by accident too much strain was put on the cable, it broke and sank, and failure had come again.

But the end was near at hand. With great difficulty Field raised more funds, had another cable made, lighter and stronger than the last one, and this time the "Great Eastern" made her journey without an accident, the shore end was safely landed at Trinity Bay, Newfoundland, messages passed freely from end to end, and one of the most wonderful of modern enterprises was safely accomplished. Then the ship went back to mid-ocean, grappled in the water's depths, two miles down, for the lost cable of the year before, caught it and brought it up, spliced it to the unlaid part, and set out again for Newfoundland. This, too, was landed, and two electric cables crossed the seas. Cyrus Field had not only achieved his great work, but had duplicated it.

The wires worked splendidly. Men began to talk across the ocean as they had formerly talked across the street. It was expensive at first, one hundred dollars being charged for twenty words of five letters each. But the rates soon went down, and now, instead of paying five dollars for a word, messages can be sent for twenty-five cents a word.

Mr. Field's success brought him the highest honor. Men no longer laughed at his enterprise as, years before, they had laughed at that of Morse, and, years earlier still, at that of Fulton. Congress voted him the thanks of the nation, and presented him a gold medal and other testimonials of honor and respect. The French Exposition, which was held soon afterwards, gave him its grand medal, and honors were showered upon him from other quarters. Success in his great enterprise had made him

one of the conquering heroes of the world.

Mr. Field did not rest in his later years, but spent an active and useful life, taking part in various important business enterprises. In 1871 he went into a company which proposed to lay a cable across the Pacific by way of Hawaii and Japan to China. This was not done, but since then electric cables have been laid across that great ocean. He also took part in laying the street railways of New York, and engaged very actively in the building of the elevated railways of that city. He died in New York, July 12, 1892.

Chapter 19

Elias Howe

1819-1867

For centuries and tens of centuries the needle has been in use as woman's especial tool. From the remote stone age down to the present day the song of "Stitch! Stitch! Stitch!" has been sung, and only about sixty years ago did the whirr of the sewing-machine begin to serve as the chorus to this wearisome song. Then a poor inventor of Yankeeland set his wits to work, and when he ended the machine was devised whose merry music may be heard to-day in hundreds of thousands of homes.

Poor Elias Howe! The story of his life reads like a romance; but, like that of many inventors, it was a romance of poverty, misfortune, endless discouragements, stern perseverance, a clinging to one idea through the darkest of days, and, in the end, success. He would have been a far happier man if the fever of invention had not seized upon him, but millions of households would have been less happy if he, or someone like him, had not brought ease and rest to the fingers of the sewing woman.

Photograph of Elias Howe

Elias Howe was born in Spencer, Massachusetts, July 19, 1819. He was born to poverty and hard work. Until he was sixteen years old he dug and delved on his father's farm and wrought in his mill. Then he went to Lowell and learned the machinist's trade, and from there to Cambridge — a frail, sickly fellow, barely able to earn a living on account of persistent ill health. Yet he married, and by the time he was twenty-three had a wife and three children to support. Then, one day, he happened to hear some men in the shop talking of what a useful thing a sewing-machine would be, and the true work of Elias Howe's life began. From that day on, the

idea of inventing such a machine stirred in his mind and would not let him rest.

The idea was new only to him. Many had tried it before, but with no great success. The first invention dates back to 1755, when Charles F. Weisenthal, of England, patented a needle with an eye in the centre and pointed at both ends. Several other inventions were made, intended for embroidering, and some also for sewing shoes and gloves, but none of them making a firm, secure, and satisfactory stitch. The task of accomplishing this was left for Elias Howe.

From the time he heard the men talking in the shop Howe was haunted with the idea. In the evening, after his day's work was done, he would sit for hours in his humble home, watching his wife's busy fingers as her needle went in and out through the cloth, and thinking deeply as he sat. Up to this time, through all the ages, the hand of woman had been the one sewing machine, and his first idea was to make a machine that would work like the fingers of a seamstress. For a year he watched and worked, trying various devices, but in the end he gave this project up. He saw that a stitch of a different kind was needed.

His constant thought at length bore fruit. A single thread evidently would not do. It would not hold. If broken it would ravel out. All previous machines had used one thread, but to do work that would hold two threads were needed. He was now on the right track, that of the lock stitch. The idea came to him of using a needle with an eye near the point, passing through the cloth and making a loop in the thread, and a shuttle carrying another thread and darting backward and forward, carrying its thread through the loop and locking the stitch by the joint movements of needle and shuttle.

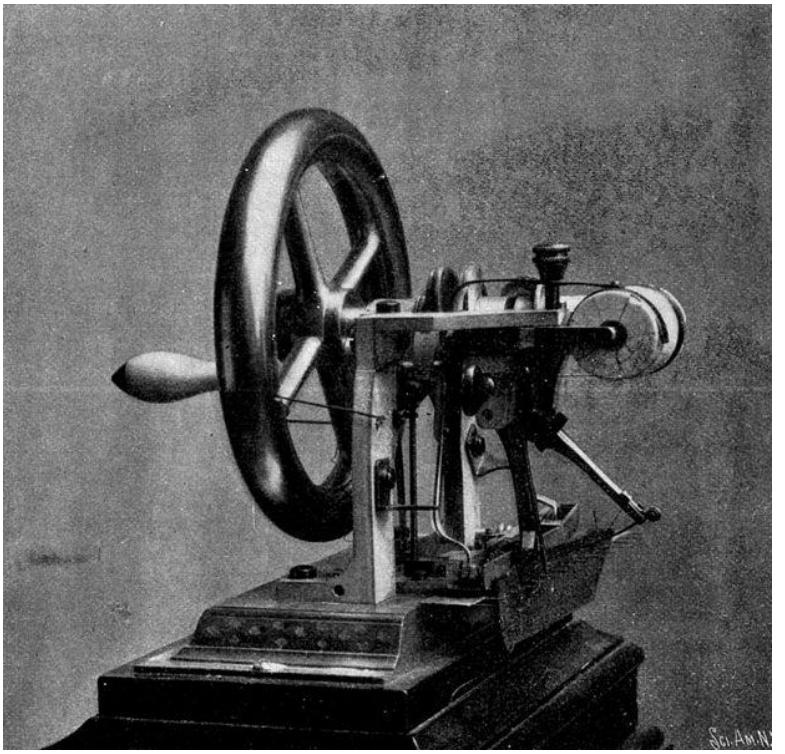
It was a happy idea. It contained the principle on which the sewing-machine of to-day is based. It is true that there are single thread sewing-machines now in use which make a stitch that is all right if the thread does not break; but it is all wrong if it does. The shuttle was Howe's great invention, and it is the life of the sewing machine.

But it is one thing to have an idea in the mind, and another thing to make it work in wood and metal. Feeble in health, empty in pocket, the young inventor had a difficult task before him. His father could not help him, for he was as poor as himself. Finally he found a friend who believed in his idea, and who had money. This was George Fisher, a Cambridge wood and coal dealer, who agreed to give Mr. Howe and his family a home and food and to furnish him with five hundred dollars for his experiments. For this he was to have a half interest in the invention, if one should be made.

At last poor Howe had the opportunity to work out his ideas. The garret of Fisher's house was his workshop, and there he toiled diligently day after day, his day often running far into the night. For a great part of the year he kept at it, planning and devising, trying various ways of making his needle and shuttle work, experimenting in a dozen directions. Finally, in April, 1845, he had it so far perfected that it would sew a seam, and in July he proved what it could do by making with his machine a suit of woolen clothes for himself and another for Mr. Fisher. Success was at length attained. Crude as the machine was, it contained the essential features of the splendid machines made to-day.

Howe's needle was a great invention, without which no sewing-machine would be available. So was his shuttle. The two together made the firmest of stitches. His needle at first worked horizontally, and the cloth was passed vertically through the machine. But it was not long before the needle

was set to work vertically, and the cloth was laid upon the table of the machine, with devices to move it at proper speed under the needle. This done, victory was gained.



The Elias Howe machine, 1846
(Earliest model filed in Patent Office)

So far the difficulties had been workshop labor. Now the inventor had a fight with the world before him, and he found it a terrible one. The machine was completed, it was patented, it was offered to the tailoring trade, but nobody would buy it. Tailors looked at it, saw it work, said that it was no doubt very ingenious and might be useful — but they would not buy it. It was costly, and might soon get out of order. And if successful, think of the thousands of men and women it would throw out of work! In the end Mr. Fisher got tired of keeping Howe and his family for his interest in a machine that would not sell, and the older Mr. Howe was obliged to take them in. He was too poor to support them, and Elias got a place as railroad engineer, and the precious machine was banished to a corner. As for Fisher, in the end he grew to look so contemptuously on the invention that he was ready to sell his half interest in it for a small sum, and Howe succeeded in regaining possession of the whole.

As soon as he had saved a little money, Elias sent his brother Amasa to England with the model of his machine, to see if it could be introduced there. Amasa made some sort of arrangement with a corset-maker, and Elias, with new hope, set off with his wife and children for London, trusting to find a market for his wares. But it was the same story over again. Everywhere he met with discouragement and disappointment. The corset-maker did not treat him fairly, his money ran very low, and he was forced to send his wife and children back again to his father, staying himself in London in hope of better luck.

No luck came, his last dollar was spent, and in the end he had to pawn his model and patent papers for money enough to bring him home again. He landed in New York, and there received the distressing news that his wife was dying of consumption in Cambridge.

The poor fellow had not money enough to pay railroad fare, he was too weak to walk, and he had to stay where he was until someone sent him money enough to bring him home to his dying wife. He reached Cambridge barely in time to see her alive. Soon the spirit of the faithful wife and mother, whose busy needle had formed the inspiration for his machine, passed away and left him almost heart-broken.

It may well be that poor Howe wished he could follow her himself and give up the fight. It was

now 1849. Several years had been spent in America and England in destitution and constant disappointment; his labor, his time, his talent, had gone for nothing; ill health had been his companion, death had removed his wife, he and his children were a charge upon his father, many of his friends thought that he had wasted his life in useless fancies; the outlook was enough to make him despair.

But there came a change in the tide of events. The inventor found friends ready to advance him money for a purpose next to be mentioned, and for the first time fortune began to smile on him. No doubt it was a bitter thought to him that the good wife who had shared his days of misery was not with him now that hope was rising in his sky.

The fact was that while he was in England his invention had been pirated in America, machines had been made on the principle discovered by him, and their makers, more fortunate than he, had found buyers for them. He came home to learn that his name was growing famous and his invention was fast coming into use. There were various inventors who had made improvements upon it, but all of them used his ideas in some form or other and were infringing upon his patent. He thereupon, aided by his friends, began a series of lawsuits against those who were using the ideas to which he had given years of his life, and especially against a Mr. Singer who was making money by selling an improvement upon his machine.

The battle in the courts was long and hard. The pirates fought fiercely. Among other things they unearthed a machine which had been worked upon by a Walter Hunt of New York about 1832, in which the lock-stitch was to be employed. But it was proved that this had been a dead failure, and in 1854 the courts decided in Howe's favor, ordering all the pirates to pay him a royalty on every machine they had made or should make. Thus, after ten years of desperate work, the inventor attained success.

Elias Howe Monument, Seaside Park, Bridgeport, Connecticut

He had opened a small factory in New York, but his royalties now began to pour money upon him much faster than his sales, and his total income from them amounted in time to over $2,000,000. He lived to see the machine to which he had given the best years of his life accepted as one of the world's greatest inventions, while honors were showered upon him. Among these were the Cross of the Legion of Honor, which came to him from France, and a gold medal from the French Exposition.

In 1861 he raised and equipped at his own expense a regiment for the Civil War, in which he served as a private until ill health

compelled him to resign. His labors, his long anxiety and privation, his naturally frail constitution, were now telling upon him, and two years after the war, on the 3d of October, 1867, the famous inventor died.

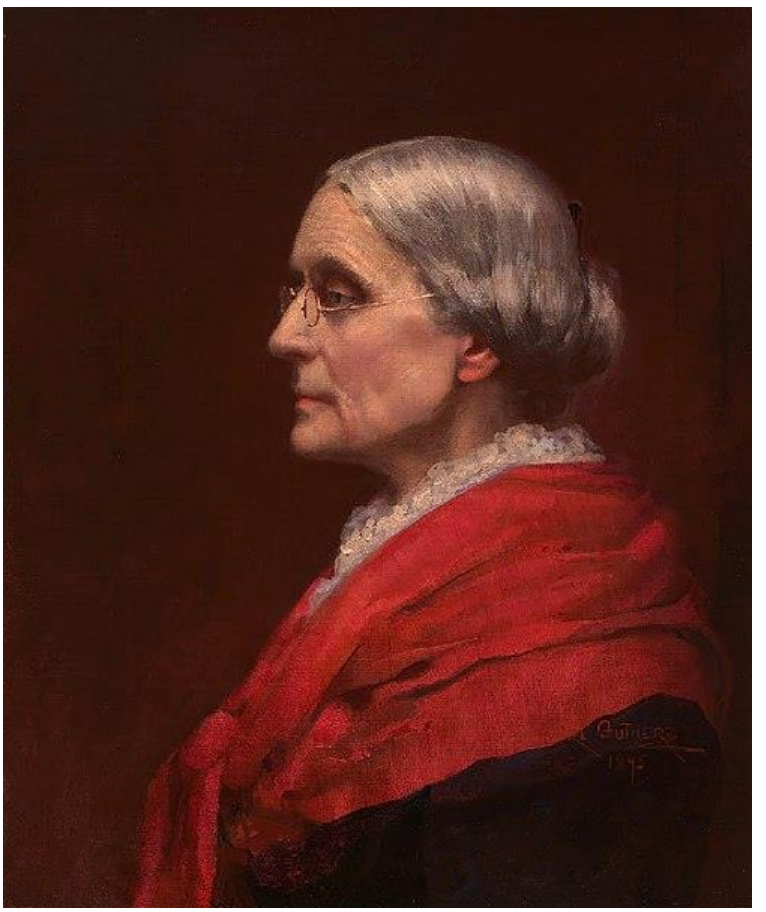
Chapter 20

Susan B. Anthony

1820-1906

The cause of the political rights of women has had no more strenuous and unyielding advocate than Susan Brownell Anthony, a woman who for more than fifty years rarely let a day go by without doing something to advance her favorite reforms. Among these woman suffrage stood first, but there was no modern movement for the good of woman or of humanity in general to which this veteran agitator did not lend her aid. And when Miss Anthony came to the aid of any cause it was with heart and soul.

Born in South Adams, Massachusetts, February 15, 1820, of Quaker ancestry, Miss Anthony received an excellent education from her father, who was a cotton manufacturer. She was yet in early childhood when her father removed to Washington County, New York, where her early studies were in a small school held in his house.



Susan B. Anthony, Carl Gutherz

Her education was completed in a Philadelphia school, and at the age of seventeen, her father having failed in business, she entered upon her life duties as a teacher, glad to be able to earn her own living and relieve her father.

There was one thing, however, that the youthful teacher protested against from the start: the low wages paid, and the discrimination in favor of men. She had certainly some reason to complain of under-pay, in view of the fact that she received but a dollar and a half per week, in addition to the not very enticing privilege of "boarding around." The frequent change of diet and domicile arising from this

Photograph of Susan B. Anthony

custom of the times must have been anything but agreeable to a high spirited woman.

What principally roused Miss Anthony's indignation at this time was to see men whom she felt to be much inferior to her in education and ability as teachers receiving three times her salary. It was this injustice, as she deemed it, that led her first to lift her voice in public. This was at a meeting of the New York State Teachers' Association, where some of the men were deploring the fact that their profession was not held to be as honorable and influential as those of the lawyer, the doctor, and the minister.

During a pause in the debate Miss Anthony rose and, to the horror of many of them, began to speak. In those days for a woman to venture to offer her views in a meeting of men, or, for that matter, in any meeting, was looked upon as an event utterly out of woman's sphere. The fair rebel against the conventionalities did not sin greatly. Her speech was not a long one, but what there was of it was telling and pithy. She said:

"Do you not see that as long as society says that a woman has not brains enough to be a lawyer, a doctor, or a minister, but has ample brains to be a teacher, every man of you who condescends to teach school tacitly acknowledges before all Israel and the sun that he hasn't any more brains than a woman?"

With this brief but knotty sentence she sat down, leaving it to them to digest. For years afterwards she strove in the association to bring women's wages and positions as teachers up to those of men, and she succeeded in greatly improving the standing of women in this respect.

Miss Anthony's career as a teacher continued until 1852, but several years before it ended she began to take an active part in reform movements as a public speaker. Her first appearance in public was about 1846, in the temperance agitation. At that time the popular prejudice against women taking part in public work was very strong, but Miss Anthony was one of those valiant souls that do not hesitate to cross the Rubicon of custom and prejudice, and she dared criticism by a bold ventilation of her views before some women's meetings. She was helping to break down the wall that stood between woman and the public platform.

Two years later, as stated in our sketch of Elizabeth Cady Stanton, a Women's Rights convention was held at Seneca Falls, New York, where a resolution was proposed and carried demanding the right of suffrage for women. When word of this action came to Miss Anthony's ears she spoke

Photograph of Susan B. Anthony

of it as ridiculous. It was a new thought, to which she had to become accustomed, but two years later we find her in full acceptance of it, convinced that only through the use of the ballot could woman succeed in gaining an equality in industrial and legal conditions with man.

By this time she was becoming widely known as a lecturer on social topics and an organizer of temperance societies, and in 1851 she called a State convention of women at Albany, to urge upon the public the wrongs and to demand the rights of her sex. From this time forward she was a friend and co-worker of Mrs. Stanton and became regarded as one of the most ardent and able advocates of the various reforms which she took in hand.

There were at that time more insistent questions before the public than that of women's rights. First among these was that of the freedom of the slave, in which she took part with her accustomed ardor and blunt plainness of speech. To this she gave much of her time after 1856, while not forgetting the other subjects to which she had devoted herself. One of these was to secure for women admission to temperance and educational conventions on equal terms with men. In this she succeeded. The fence of exclusion was slowly giving way before her assaults.

During the Civil War Miss Anthony was very active, lecturing from city to city upon the vital questions of the day. She joined others in forming the Loyal Women's League, and in association with Mrs. Stanton sent petitions through the country to develop a public opinion in favor of abolishing slavery as a war measure. The duty of decreeing universal emancipation was strongly urged by her upon President Lincoln and Congress.

By this time Miss Anthony had gained much facility as a public speaker. She never indulged in flowers of speech and rarely rose to eloquence, but was fluent and earnest, direct and business-like, always talking to the point, always sincere, and usually convincing. Her energy was untiring, her good humor inexhaustible, and she was always quick to see and to seize an opportunity.

The war ended, a promising opening for the women suffragists appeared, in the settlement of the many problems that arose. Among these was the question of negro suffrage. In Kansas in 1867 two amendments to the State constitution were proposed, one giving the right to vote to negroes, the other to women. Many Republican leaders favored the former but fought shy of the latter. Miss Anthony and other orators took an active part in the contest, but when it came to a vote of the

people both amendments were rejected, the negroes getting a larger vote in their favor than the women.

An unfortunate enterprise was undertaken about this time, in the publication of The Revolution, a paper devoted to the cause of women. Miss Anthony was active in founding this, was one of its editors, and when it failed after a brief career of two and a half years, she was left with a debt of $10,000. This she paid, principal and interest, from the proceeds of her lectures.

She continued her work with indefatigable ardor, and in the decade from 1870 to 1880 spoke five or six times a week, in all the Northern and many of the Southern cities, the rights of women being her unceasing theme. She took advantage of every opportunity to deliver impromptu speeches on this subject. Thus once, when ice-bound on the Mississippi in a steamboat, she broke the monotony by organizing a meeting in the cabin and addressing the passengers on her favorite topic. Like the woman's cruse of oil, she never ran dry on the theme of woman's rights. Mrs. Stanton said she never knew her to be taken by surprise but on one occasion, when she was asked to speak to the inmates of a lunatic asylum. This was too much even for the ardor of Susan B. Anthony.

In 1872, having been registered as a citizen at Rochester, N. Y., and wishing to test her right to the suffrage, she voted at the national election. For this she was arrested, tried, and fined, the judge directing the jury to bring in a verdict of guilty and refusing a new trial. Under the advice of her counsel, she gave bonds to prevent being imprisoned. This she always afterwards regretted, as it prevented her taking the case to the United States Supreme Court. Her purpose was to test the validity of the Fourteenth Amendment to the Constitution. As to the $100 fine, it still remains unpaid.

Susan B. Anthony on her 80th Birthday, Sarah J. Eddy

The unceasing agitation kept up by Miss Anthony was not without its effect. Gradually the people of the country grew accustomed to the idea of woman suffrage, it gained a large support among men, and became established, in greater or less measure, in many of the States. In 1880 she made a plea before the Committee on the Judiciary, of which Senator Edmunds has said that her arguments were unanswerable, and were marshalled as skilfully as any lawyer could have done. For years she sought to rouse the people of this country to

demand the adoption of a sixteenth amendment to the Constitution, making woman suffrage a part of the fundamental law of the country.

Miss Anthony said that her work was like subsoil plowing. Through the many reforms brought about by her in the condition of women she was simply preparing the way for a more successful cultivation and a more liberal harvest. One of her larger labors was the "History of Woman Suffrage," edited by her in conjunction with Mrs. Stanton and Matilda J. Gage, which embraces three bulky volumes of 1000 pages each.

Miss Anthony attained her eighty-sixth year of age without losing her ardor in the cause. Her life's work had won her a reputation as wide as civilization, while the honor in which she was held was indicated by the refusal of the Empress of Germany to remain seated in her presence when a party of American suffragists visited the German court. The empress was unwilling to seem to put herself on a higher level of rank than this plain American woman, whom she regarded as having won a station of honor above that of the throne. Miss Anthony died, ripe in years and in the world's respect, on the 13th of March, 1906.

Chapter 21

Elizabeth Blackwell

1821-1910

Photograph of Elizabeth Blackwell

Elizabeth Blackwell was not the first woman doctor. There were women physicians and surgeons in ancient Egypt, and woman students were admitted to Egyptian medical schools. There were women doctors in ancient Greece and Rome, too, and in Europe in the Middle Ages. In Salerno in the eleventh century — one of the best medical schools in the world at the time — women taught as well as studied, and the department for women's diseases was handed over to them entirely. Women doctors survived the Reformation, and in England under Henry VIII they were given licences to practise in the same way as men.

From time to time attempts were made to rid the profession of women. In 1341 the Pope issued an Edict forbidding women to practise medicine. Exactly two hundred years later the English Guild of Surgeons passed a resolution "that no carpenter, smith, weaver, or woman practise surgery." As the medical profession became better organized it was made more difficult for women to enter it. This was mainly because male doctors expected, reasonably enough, that they would make more money if they did not have women competing with them for fees. Male doctors controlled the medical schools, and in most countries only men were admitted as students. Yet women continued to work as doctors, and in England in the eighteenth century husbands and wives sometimes practised together. There were still English women doctors at the beginning of the nineteenth century, but their opportunities were becoming more limited. Medicine was becoming steadily more scientific, and the need for proper training increased; and more measures were being taken to protect the public from unqualified practitioners. The question of decency,

as it was called, was another barrier to women. Altogether English doctors had little cause to fear female competition when Elizabeth Blackwell was born.

That was on February 3, 1821 — less than a year after the birth of Florence Nightingale. Elizabeth was luckier in her parents. They were not so rich, and eventually they became quite poor; but to achieve her aim she did not have to fight her family as well as the world.

She was born at Counterslip, Bristol, and was the third daughter of Samuel Blackwell, a sugar-refiner. He was a Nonconformist, a member of the Independent Church. He was also something of a rebel. He believed in social reform, the rights of women, and the equality of man. He was a strong supporter of the movement against slavery, and he made plans for the use of beet-sugar in order to make slave labour unnecessary. The anti-slavery movement was an unpopular cause in Bristol, particularly in the sugar trade; but Samuel Blackwell was not an unpopular man, and he was respected even by those who opposed his views.

He also had unusual opinions on bringing up children. He allowed them to be heard as well as seen, and did not share the general view of the age that they should be their parents' chattels and consider themselves lucky to be born. "Children also have their rights," he used to say. He had many children, and they all loved him.

Anna, the eldest, was considered the most intelligent, and when she was ten she said she was going to be a writer. Marion, the second daughter, was not so ambitious and said she was just going to read; Elizabeth, then six years old, was vague but determined. "I don't know what I'll do," she said, "but I think it will be something hard." Each of them fulfilled her aim.

Elizabeth only just survived her birth, and she was a sickly infant. As she grew up she was a shy, quiet little girl, and yet extraordinarily self-willed and stubborn. Outwardly she seemed to have much less spirit than Anna, and yet it was not long before she dominated both her older sisters. Her independence and obstinate determination were strong when she was still quite small. She insisted on doing things herself, no matter how difficult they were. She would not let anyone help her tie up her boot-laces or do up the buttons on her frocks, and when lessons began she fought with her exercises and would never ask for help. Aunt Barbara — Aunt Bar, they called her — said, not exactly with approval, that she had never seen such determination in a child. Another aunt said it seemed a pity that such spirit should be "wasted" on a girl. Her father disagreed. All human beings had equal rights, he said — rich and poor, whiteskins and blackskins, old and young, men and women, boys and girls. They should all have the same opportunities, and that included the same education.

There were few good schools for boys then, and fewer still for girls; and most of the good schools were Church of England institutions, and did not take the children of Dissenters. Samuel Blackwell therefore had all his children educated at home. At first they had governesses, and then tutors; and boys and girls were taught exactly alike. Elizabeth and her sisters were not packed off to do embroidery but sat with their brothers and learned Latin and Greek, history and mathematics. What was then the novel idea of co-education never seemed out of the way to Elizabeth, for she was brought up on it.

Aunt Bar and the other aunts did not approve, and visitors to the house asked if this schooling for girls was wise. What, they asked, did their father intend they should do with all this masculine education? "They shall do what they please," he said. He did not believe that the only possible career for a woman was marriage.

The family grew rapidly. Elizabeth was followed by three boys and two more girls, and afterwards she said she could scarcely remember a time in her childhood when her mother was not either expecting or nursing a baby.

Samuel Blackwell was a Whig and a strong supporter of electoral reform. He was also a good employer and wanted to raise the condition of the working classes. He understood the reasons for their growing unrest, but did not approve of violence in any cause, and he was grieved when a mob in Bristol burnt down the town hall and other buildings and terrorized the city. His family were at their country home at Ovelston, about nine miles away, but he stayed in Bristol. When he heard that the rioters were going to attack the church of St Mary Redcliffe he went to stop them.

The rector had run away. Not one member of the clergy or congregation dared to defend the church. But when the mob reached it they were stopped outside by three men — Samuel Blackwell and two friends, all Dissenters. Blackwell spoke to them, and they listened. It was not his church, he said, but it was a church; and no true reformer would destroy churches. Indeed, he said, the destruction of any property was not in keeping with the spirit of reform.

His own views were well known, and he was popular with the mob. They called off the attack on the church, and did not destroy any more buildings. The riot was over. Blackwell was the hero of the city, and there was talk of electing him mayor. But he found no joy in his victory, for industrial unrest was increasing all over the country. "Neither side will listen to reason now," he said. He blamed the Tories and yet was tolerant towards them. They repressed the people, he said, "not because they are cruel but because they don't understand better. The heart must be educated." But the struggle became more heartless, and he began to lose his love of England. He talked often with visitors from America, and watched the emigrant ships set out from Bristol. He began to think of taking his family to this "big land with free men and free ideas." Perhaps, he thought — a bit too hopefully — the American sugar-industry would take more kindly to his idea of using sugar-beet and so removing the need for slave labour.

No decision was made until by accident his sugar-refinery caught fire and was gutted in two hours. A group of other refiners offered to lend Blackwell the money to rebuild his business. He talked it over with his wife, and they finally decided to emigrate. They left during 1832, when Elizabeth was eleven. There were sixteen in the party — the parents, the eight children, four maiden aunts, and the family nurse and governess. After a voyage of seven weeks they arrived at New York.

They lived first in the city, and then took a farm-house on Long Island, where they kept cows and pigs and hens and planted an English garden, and the girls learnt to ride. Later they moved across the bay to Jersey City. The children went to school, and their father started a new sugar-refinery. He also went to an anti-slavery meeting addressed by William Lloyd Garrison, and afterwards jumped on the platform and introduced himself. A friendship arose at once, and Garrison became a regular visitor at the Blackwell's home.

They made other friends, but in general Blackwell was disappointed in America. He found it was not such a free land as he had hoped, and when he made his proposals for the use of beet sugar almost the whole sugar-industry was hostile. The opponents of slavery were still in a minority, although in England they had just won the final victory. In the year after the Blackwells emigrated the slaves were set free throughout the British Empire.

Elizabeth was sixteen when her father's business crashed. There was a financial crisis in New

York and a run on the banks, and he had to sell his refinery for what he could get. He set up a furnace and boiler in the cellar of his own house to continue his favourite experiments in refining sugar from beet, but ran out of funds. Finally he took his family away from New York to Cincinnati. He had made an exploratory visit, and liked the atmosphere of freedom and intellectual activity of the town. It had only one small sugar-refinery, and Blackwell thought he could build up a new business.

They travelled by stage-coach, and then by canal-boat down the Ohio river, and moved into their new home. Blackwell was sick, and a doctor had to be called before they had unpacked. He was very ill, and never had a chance to put any of his plans into practice. Within a few months he was dead.

Anna was twenty-three and Marion twenty-one, and Elizabeth nearly eighteen. The oldest of the boys, Samuel, was only fifteen. Their father had little money to leave them, and the girls had to start earning at once. There was only one job that any one of them could do, and all three could do that: teaching.

They founded a school in their own home. Elizabeth took over the job of canvassing for pupils, and went round the houses interviewing parents. She liked this better than teaching, and left the running of the school to Anna and Marion and their mother, who also helped in class. The school did well enough to pay off their debts and provide them with a living, and the pressure was eased when Samuel and another of the boys went out to work.

They made friends, too. One of them was Harriet Beecher Stowe. She was an almost unknown writer then, but she and her husband held literary evenings and were prominent in movements that the Blackwell girls had learnt about from their father, especially anti-slavery and women's rights.

Elizabeth never had a Call. She was drawn to medicine by accident. It all began when she was visiting a friend of her mother's who was dying of cancer. Elizabeth sat by her bed and read to her and talked. One day the woman said, "You are fond of study, and have health and leisure — why not study medicine? If I could have been treated by a lady doctor my worst sufferings would have been spared me."

She resolved to become a doctor.

She told her mother and sisters, and they took it calmly. They knew there were no qualified women doctors in America, but if Elizabeth decided to be one they were quite sure she would. She had always done what she had resolved to do, and it did not occur to them that she might fail. "Our Elie can do it if anyone can," said her brother Henry, and the others all thought the same. The only doubt was expressed by Marion, who said that from her experience Elizabeth was the last woman in the world who ought to be a doctor.

Three things inspired Elizabeth to become a doctor. The first was her feeling of frustration at having nothing to do. The second was her falling in love and not wanting to marry. The third was that it was almost impossible for her to become a doctor.

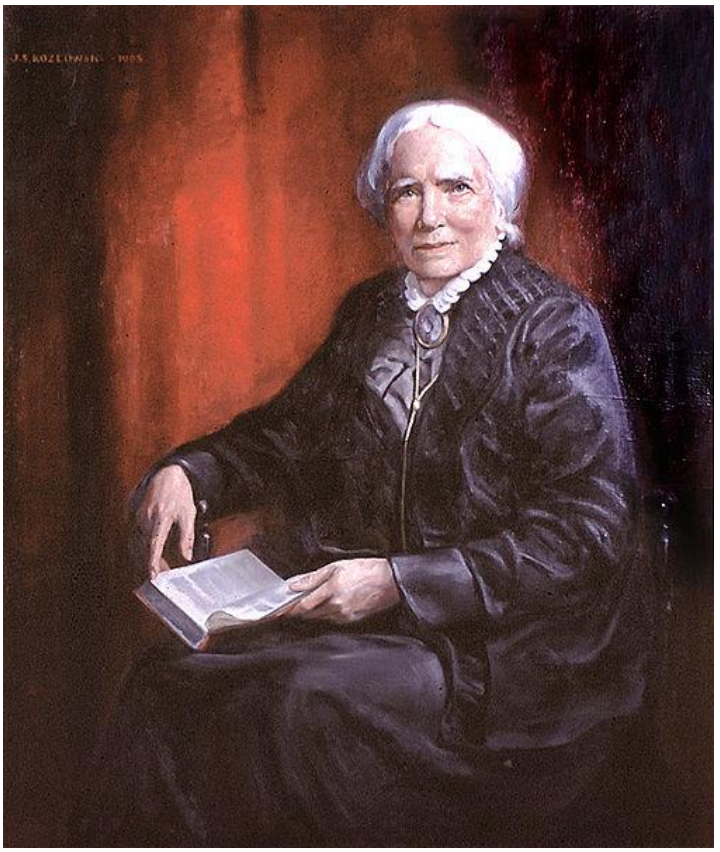
The last factor probably clinched it. She had always wanted to do something hard. She could scarcely have found anything harder.

She told the Stowes about it, and they were astonished. There was no law against a woman becoming a doctor, but the prejudice would be tremendous. There was no law compelling medical schools to admit a woman, and she could be quite sure that none of them would. Harriet Beecher Stowe advised her to give up the idea and take up something she could do at home — writing, for

example.

Elizabeth told Dr Reuben Mussey, the leading physician in Cincinnati. He was horrified. No medical school in America would admit a woman, he said. The French schools might be more liberal, but they would offend her decency. "The methods of instruction are such that no lady could stay there six weeks." She heard that objection many times. Any course of medical training involved learning more about the human body than a respectable unmarried woman of that age was supposed to know.

Elizabeth wrote in her diary: "I am determined to become a physician."



Elizabeth Blackwell, Joseph Stanley Kozlowski

She wrote to a doctor in New York, asking him for information about medical schools and advice on her plans. He sent the information but no advice. She asked other doctors, with similar results. Paris was sometimes suggested, for it was believed — incorrectly, as it happened — that in France women could attend lectures in every branch of medical science, although they could not obtain a diploma. But she was advised not to go to Paris, because it was believed — also incorrectly — to be a sink of immorality, a city of sin, where no decent woman could safely go. People who have never been there sometimes express similarly quaint ideas about Paris to-day.

Elizabeth could not deny one objection that was raised, and that was the need for money. A medical training was expensive, and far beyond her means. She had the support of her family, but they could not raise the money. Friends offered to help, and one woman wanted to lend her a thousand dollars; but she could only find a hundred, and as Elizabeth needed three thousand she declined the loan. She decided to do it the hard way and earn the money herself. The bullock's eye was forgotten now, and she was absolutely determined. She still felt no vocation for medicine, no burning desire to help suffering humanity; but she felt very strongly about forcing the profession to let women in. "The idea of winning a doctor's degree gradually assumed the aspect of a great moral struggle," she wrote in her diary, and confessed that "the moral fight proved an immense attraction to me."

The only way Elizabeth could earn money was by teaching, so when she was twenty-four she went south again. She went to Asheville, North Carolina, to teach in a small school run by the Rev. John Dickson. He had been a doctor himself, and had a fine medical library; and he gave her some

preliminary instruction in physics and chemistry. He applauded her ambition, although he doubted her success.

One day another teacher brought her a dead beetle, crushed in a handkerchief, and offered it as a subject for dissection. Immediately her old squeamishness returned, and the thought of touching the corpse made her feel physically sick. Her determination fought and won another battle, and she jabbed the dead insect with a knife. To her relief, all that came out was a little yellow powder. "It was my first exercise in dissection," she wrote home. "I don't think I shall ever again be timid." She never was.

She stayed for nearly a year at Asheville. Among other things she started a Sunday School for Negro children, and nearly got into trouble for trying to teach them to read and write. This was forbidden by the laws of the state.

At length the school was closed, and on Dickson's advice Elizabeth went to Charleston to continue her pre-medical studies with his brother, Dr Samuel Dickson. He was not only a practising physician but a professor in the medical school in the city. He also approved of her ambition but warned her that he could not help her to get into a school. However, he willingly let her use his library and gave her some instruction in Greek and anatomy and physiology. He also introduced her to a relative who ran a girls' boarding school, where Elizabeth went to work as music teacher.

She worked furiously. She rose at five in the morning, studied until breakfast, taught for eight hours in the school, and then went on studying in the evening until she could not keep awake. At the same time she hoarded her money.

Philadelphia was the medical centre of the United States, and she wrote to a Quaker physician there, Dr Joseph Warrington, who had opened a school for training "gentle-women" to become nurses. She told him her hopes and asked his advice. He took her letter seriously, and asked intelligent women in Philadelphia for their views. They all assured him they would have nothing to do with a woman doctor. Then he sent Elizabeth a long reply. "If the project be of divine origin and appointment," he said, "it will sooner or later be accomplished." But he added that in his opinion she would do better to devote herself to "the holy duties of nursing the sick." He said that in his opinion it was appropriate that "man be the physician and woman the nurse." Incidentally Florence Nightingale gave exactly the same answer when she was asked to support the cause of women doctors. She was always a disappointment to the champions of women's rights.

Elizabeth took heart from Dr Warrington's letter in spite of his last remarks, and after two years in North Carolina she went to Philadelphia. She lodged with another Quaker doctor, William Elder, who arranged for her to take instruction in anatomy at a private school run by Dr Joseph Allen. He also promised to give her instruction in chemistry himself, so that if she succeeded in getting into a medical school she would be better prepared than most new students.

Dr Allen taught her dissection, and was full of praise for her work. He only said it was a pity that she would never be able to qualify as a doctor. But that was the one thing Elizabeth would never believe. Armed with letters of introduction from Dr Elder, she began paying visits to the leading doctors of Philadelphia. She succeeded in winning over a professor at one of the city's medical colleges, and he took the question up with his colleagues; but they turned down the proposal for her admission out of hand. She applied to the other medical schools, and Dr Warrington backed her; but the result was the same. Finally Dr Warrington told her it was no use.

If she was still determined, he said, she must go to Paris "and don masculine attire to gain the necessary knowledge." Elizabeth would not hear of this. Unless she went to a medical school as a woman she would not be winning her moral fight.

Dr Warrington took her round with him on his medical calls, and she wrote to medical schools in New York and other cities. Still they turned her down. There was a heatwave in the summer, and Dr Allen closed his school temporarily. Elizabeth accepted an invitation from her sisters to spend a holiday with them by the sea. None of them were married, although Anna had had a secret romance. There were echoes of it in some of her poems, which were published and highly praised by Edgar Allen Poe. One of the boys had followed his father's example and written verses against slavery. Her brothers all promised to help her financially, even if it meant paying for her to go to Europe. She was considering this seriously now, and talked about it with Anna, who was winning a reputation as a journalist and thought of becoming a foreign correspondent. But Elizabeth had not given up hope in America yet.

Elizabeth Blackwell Street, historical marker,
at SUNY Upstate Medical University, Syracuse, NY

After a holiday of six weeks she began writing to the smaller medical schools; and more rejections came in. From the dean of one of these schools she had a reply that was at least honest. "You cannot expect me to furnish you with a stick to break our heads with," he said. He was the only one who admitted the medical profession's financial reason for wanting to exclude women.

Elizabeth now got a list of all the smaller medical schools in the northern states. She obtained their prospectuses, studied them carefully, and selected twelve. She applied to each, bringing her total number of applications to twenty-nine. Eleven turned her down. The twelfth was one of the smallest medical schools in the country — at Geneva, in New York State, near the Canadian border. The school authorities decided to put her application before the students and let them give the answer. Then they wrote to Elizabeth and told her that the students had resolved "that to every branch of scientific education the door should be open equally to all, and that the application of Elizabeth Blackwell to become a member of our class meets with our entire approbation."

The battle was won. Elizabeth Blackwell was going to be a doctor.

Chapter 22

Louisa Alcott

1823-1888

Photograph of Louisa May Alcott

Of the four "Little Women" in that book which we all love, it is generally "Jo" who is the greatest favourite. She is such a real person to us, and we seem to know her so intimately that it is not at all surprising to learn that she did not only live between the covers of a book, but was a real live person and lived a real life in this world of ours. Only her name was really Louisa Alcott and not Jo March, and the story she wrote about Jo and Meg, Beth and Amy, was, with a few alterations, the story of herself and her three sisters, Anna, Elizabeth, and May. Her story, as we know, begins when "Jo" was almost grown up, so there is a great deal more to be told about her when she was a little girl.

Louisa Alcott was born in Germantown, Pennsylvania, on the 29th of November 1832. She was the second "little woman" born into the Alcott family, but she had quite as warm a welcome as the first, and both father and mother were proud to have another daughter.

From the very first Louisa was quite a credit to the family. She was such a strong, healthy baby, and such an extremely good one.

"The prettiest, best little thing in the world" was the verdict of one of their friends. "It has a fair complexion, dark bright eyes, long dark hair, a high forehead, and altogether a countenance of more than usual intelligence."

Perhaps as a tiny baby Louisa may have deserved to be called "the best in the world," but certainly as soon as she could toddle about by herself, and her energetic little feet began to carry her into all sorts of adventures, she could scarcely be considered such a model of goodness.

She was but a baby of two years when the Alcott family moved to Boston, and by that time she

was quite an independent little maiden. She and Anna were carefully dressed in nice clean nankeen frocks for the journey, which was to be made by steamboat, and they looked the very picture of sweetness and good behaviour.

In the bustle and excitement of settling on board, however, no one at first noticed that the baby had disappeared, and when an anxious search was made it was some time before she could be found. When at last they looked into the engine-room, there sat the truant, as dirty as a little tinker and as happy as a queen, watching the engines and having "a beautiful time."

Those energetic feet of hers and her inquiring mind led her into a good deal of mischief, and she was never tired of trying to run away. Sometimes she was caught and brought back before she had strayed very far, but one day she escaped unnoticed and spent a long happy day wandering about with some Irish children with whom she had made friends. They played about the common together and dug in the dust-heaps, and when she was hungry the children shared with her their store of cold potatoes, salt fish, and crusts.

It was all most delightful until evening came on, and then Louisa suddenly began to think about home and to wish she could find her way back. It was so easy to run away, but not nearly so easy to return. At last, when the other children left her, she gave it up and sat down on a doorstep close to a big friendly dog that allowed her to cuddle up close to him and lay her tired head on his curly back. She watched the lamplighter going his rounds and the lights begin to twinkle in the streets, and then she fell fast asleep and slept soundly until the town-crier came round with his bell.

"Lost, stolen, or strayed," he cried, "a little girl, in a pink frock, white hat, and new green shoes."

"Why, dat's me," said a small voice from the doorstep as Louisa sat up and rubbed her eyes, smiling a very sleepy smile.

She did not at all like to be parted from the dear curly dog, but the crier carried her off to his house and gave her a most delicious supper of bread and treacle on a tin plate with the alphabet round it.

So far the adventure had been nothing but pure pleasure, but the fun came to an end the next day when the runaway found herself tied to the arm of the sofa, with plenty of time to sit still and repent.

She had not meant to be naughty. The world was so full of interesting things, and she loved to make friends with everybody.

"I love everybody in dis whole world," she had declared with a beaming smile one morning at breakfast, and the little Irish children had only come in for their share.

That dinner of cold fish and potatoes must have been a real treat to Louisa, for at home she seldom had anything to eat but plain boiled rice without sugar and some kind of porridge. Her father never ate meat, and the children were not allowed to have it either. It was no wonder that they sometimes grew very tired of plain rice and porridge and longed for something more tasty. Great indeed was their joy when a kind old lady came to stay at a hotel close by, and used to save up her pies and cakes in a bandbox ready to carry over to the children.

Years afterwards, when Louisa had become a famous authoress, she met the old lady again and went up joyfully to greet her.

"Why, I did not think you would remember me," said the old friend.

"Do you think I shall ever forget that bandbox?" said Louisa Alcott, smiling reproachfully at her.

Occasionally on birthdays or some such special occasion the children were allowed a cake, and birthdays were a great event in the family.

Louisa on her fourth birthday held quite a reception in her father's schoolroom. It was like being a queen to have a crown of flowers on her head and to stand on the table and hand each scholar a plummy cake as they passed. But, sad to say, the supply of cakes ran short, and the little queen found that if she gave each child a cake there would be none left over for herself. That did not seem at all fair, for, after all, was she not the chief person on her own birthday? So Louisa held the last cake tight in her hand and refused to part with it.

Her mother, who was looking on, came and whispered in her ear.

"It is always better to give away than to keep the nice things," she said. "So I know my Louey will not let the little friend go without."

It was hard to part with the "dear plummy cake," but Louisa handed it over to the waiting child, and somehow, when her mother kissed her, she felt happier than any plum-cake had ever made her feel.

That school, kept by Louisa's father, was never a very successful one, and before very long it was given up, and the family left Boston again and went to live in a country house in Concord.

It was a delightful change for the children. They loved the cottage and the garden full of trees, and they had besides a large barn which they were allowed to use as a playroom.

All the little Alcotts were fond of acting and dressing up. They had found their way early into Make-Believe Land, and now the old empty barn was the very place for them to act their plays and pretending games. The little Emersons and Hawthornes who lived in the neighbourhood came to help, and together they acted the Pilgrims Progress, Jack and the Beanstalk, and all the stories they knew.

Lessons were carefully done, though, before play began, and every morning the children went to their father's study for several hours. Louisa tells us those hours were very pleasant ones, for her father never crammed them with learning but taught in the wisest, pleasantest way. She says, "I never liked arithmetic, nor grammar, and dodged those branches on all occasions, but reading, writing, composition and geography I enjoyed, as well as the stories read to us."

No one could tell stories as her father did, for he was certainly a wonderful story-teller.

Besides the lessons in the study there was a share of housework for each little girl to do, and plenty of needlework too. Anna had made a whole shirt most beautifully when she was ten years old, and Louisa tells us, "At twelve I set up as a doll's dressmaker, with my sign out and wonderful models in my window. All the children employed me, and my turbans were the rage at one time, to the great dismay of the neighbours' hens, who were hotly hunted down that I might tweak out their downiest feathers to adorn the dolls' headgear."

Yet in spite of housework and sewing Louisa was certainly inclined to be a tomboy, and her greatest delight was always to be out of doors, running about the fields and woods, climbing trees and racing with the other children.

"I always thought I must have been a deer or a horse in some former state," she says, "because it was such a joy to run. No boy could be my friend till I had beaten him in a race, and no girl if she refused to climb trees, leap fences, and be a tomboy."

Her wise mother allowed Louisa to run about as much as she liked, for she wanted her to grow

up strong in body as well as in mind, and believed that Nature could teach her some of the best lessons. Indeed the child never forgot those things which she learned out in the woods, under the open sky, and one morning she suddenly learned the greatest lesson of all.

She had been running over the hills very early in the morning, before the dawn began to break, and had thrown herself down to rest in the quiet woods, watching for the sun to rise. Through an arch of trees she saw the light begin to flush the sky and the spell of morning to touch the hills and river and wide green meadows below, till the grey veil of shadows was turned into a golden haze.

She had often watched a sunrise before, but she had never before felt all the beauty and wonder of it, and the certainty that God was there, very near to her. The little pilgrim had caught a real glimpse of the Celestial City, and it was a vision that never faded.

The happy days at Concord in the woods and garden and old barn came to an end when Louisa was ten years old, and once more the family moved to a new home, this time to a farm called "Fruitlands," at Harvard. Here their father helped to start quite a new kind of life, with some other people who shared his ideas. They were all to live together and have everything in common, and no one was to buy or sell or make money. It was quite like a picnic at first, and the children thoroughly enjoyed themselves. This is how Louisa describes the journey to "Fruitlands": "On the first day of June 1843 a large waggon, drawn by a small horse, and containing a motley load, went lumbering over certain New England hills, with the pleasing accompaniments of wind, rain, and hail. A serene man with a serene child upon his knee was driving, or rather being driven, for the small horse had it all his own way… Behind them was an energetic-looking woman, with a benevolent brow, satirical mouth, and eyes brimful of hope and courage. A baby reposed on her lap, a mirror leaned against her knee, and a basket of provisions danced at her feet, as she struggled with a large, unruly umbrella. Two blue-eyed little girls, with hands full of childish treasures, sat under an old shawl, chattering happily together… The wind whistled over the bleak hills, the rain fell in a despondent drizzle, and night began to fall. But the calm man gazed as tranquilly into the fog as if he beheld a radiant bow of promise spanning the grey sky. The cheery woman tried to cover every one but herself with the big umbrella. The little girls sang lullabies to their dolls in soft, maternal murmurs. Thus these modern pilgrims journeyed out of

Photograph of Louisa May Alcott

Home of Louisa M. Alcott, Concord, Massachusetts

the old world to found a new one in the wilderness… The prospective Eden at present consisted of an old red farmhouse, a dilapidated barn, many acres of meadow-land, and a grove."

No one was to eat anything but grain and fruits and roots at "Fruitlands," and they were to wear no woollen garments, for that would have meant robbing the sheep, and it was even suggested that no one should wear shoes, because the leather was made from the skins of animals. Here, however, the children's mother took a firm stand, and she refused to allow her little daughters to go barefoot.

The children were happy enough in their new home, for although they had to do their share of hard work, they were left free at other times to run about out of doors, which was what they loved. They all kept their diaries, and in hers Louisa gives a picture of their daily life.

"I rose at five and had my bath. I love cold water! Then we had our singing-lesson with Mr. Lane. After breakfast I washed dishes and ran on the hill till nine, and had some thoughts it was so beautiful up there. Did my lessons wrote and spelt and did sums… Father asked us what was God's noblest work. Anna said men, but I said babies. Men are often bad; babies never are. We had a long talk and I felt better after it. … We had bread and fruit for dinner. I read and walked and played till supper-time."

There was only one other lady at "Fruitlands" besides the children's mother, but she did very little to help with the work. She gave the children music-lessons which they did not like at all. Louisa writes in her diary:

"I had a music-lesson with Miss P. I hate her, she is so fussy. I ran in the wind and played by a horse and had a lovely time in the woods with Anna and Lizzie. We were fairies, and made gowns

and paper wings, I 'flied' the highest of all." She goes on afterwards to tell the story of the day when Mr. Emerson and Miss Fuller came to visit them, and how the guests had a long conversation with their father and mother on the subject of education.

"Well, Mr. Alcott," said Miss Fuller at length, "you have been able to carry out your methods in your own family, and I should like to see your model children."

The visitors were standing talking on the doorstep, and just then a tremendous uproar was heard close at hand, and round the corner of the house dashed a queer procession. Anna was wheeling a wheelbarrow in which sat baby May crowned like a queen. Louisa was harnessed as a horse, and Elizabeth ran barking at the side pretending to be a dog. The shouts ceased suddenly when the children caught sight of the visitors, and the horse in her surprise stumbled and fell, bringing wheelbarrow and baby and driver down in a heap. Mrs. Alcott turned to Miss Fuller with a smile.

"Here are the model children," she said.

Louisa had always longed to have a room of her very own, and at last when she was thirteen her wish was granted. Again she writes, "I have at last got the little room I have wanted so long, and am very happy about it. It does me good to be alone, and mother has made it very pretty and neat for me. My work-basket and desk are by the window, and my closet is full of dried herbs that smell very nice. The door that opens into the garden will be very pretty in summer, and I can run off to the woods when I like.

"I have made a plan for my life, as I am in my teens and no more a child. I am old for my age, and don't care much for girls' things. People think I am wild and queer, but mother understands and helps me. I have not told anyone about my plan, but I'm going to be good. I've made so many good resolutions, and written sad notes, and cried over my sins, but it doesn't seem to do any good. Now I'm going to work really, for I feel a true desire to improve, and be a help and comfort, not a care and sorrow to my dear mother."

That plan for her life she carried out in spite of failures and difficulties, and worked manfully for the rest of the family, especially for the mother she loved so dearly. She had always been fond of writing stories and poems, as we know from her account of "Jo," but it was uphill work at first.

"Stick to your teaching, you can't write," was the advice given to her by a friend.

"I won't teach and I can write, and I'll prove it," said Louisa to herself.

How well she proved it we all know, and very thankful we are that she stuck to her guns, for what should we have done without our beloved book, Little Women.

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