



## SAMUEL F. B. MORSE

### THE MAN WITH TWO CAREERS

**S**AMUEL F. B. MORSE, THE MAN WHOSE extraordinary abilities as an artist and inventor enabled him to reach the heights, both as a painter and the father of our telegraph, was born in Charlestown, Massachusetts on April 27th, 1791. His father, the Reverend Jedidiah Morse, noted author and divine, was a man of liberal ideas, and seeing that the lad had a talent for drawing and painting, he secured as his teacher, Washington Allston, one of the best known American artists of the day. In 1811, young Morse's work was so promising that Allston

took him to London for more extensive study. Here Morse met another artist, Benjamin West, who, though an American, was the president of the Royal Academy. West, with a kindly interest in all American art, had agreed to criticize a painting that young Morse intended to offer to the Royal Academy. One afternoon, young Morse called on West in his London Studio. . . .

SAMUEL MORSE: May I come in, Mr. West?

BENJAMIN WEST: Yes indeed, Morse. Come in, my boy.

SAMUEL MORSE: A week ago, I brought you a painting I had made, and asked you what you thought of it.

BENJAMIN WEST: I remember. And I told you to take it back and finish it.

SAMUEL MORSE: Yes, sir. I've been working on it all week. Would you look at it again now, and tell me what you think?

BENJAMIN WEST: With great pleasure. Put it right up on that easel there. The light's better.

SAMUEL MORSE: Yes, sir. There it is.

BENJAMIN WEST: Hm. Excellent. Your coloring is good. I like your composition. This will be a splendid piece of work when you finish it.

SAMUEL MORSE: When I finish it, Mr. West? That's what you said last week. I *have* finished it.

BENJAMIN WEST: Oh no, my boy. Look there—that muscle on the arm. Those finger joints. The modelling could be improved—

SAMUEL MORSE: I see. Yes, Mr. West, you're right. I thought there was nothing else I could do. I suppose now, if I were to take it back and work on it for another week, you'd still consider it unfinished.

BENJAMIN WEST: You must learn that it isn't numerous drawings, but the character of one that makes you a thorough draftsman. Finish one picture completely and you will be a painter!

SAMUEL MORSE: I think I see what you mean.

BENJAMIN WEST: I hope my criticism hasn't offended you.

SAMUEL MORSE: On the contrary, sir. You've merely confirmed what my father told me many times—that perfection can only come after countless trials and failures.

BENJAMIN WEST: I suppose then that you will return at once to your lodgings and try to finish this painting.

SAMUEL MORSE: Not today, Mr. West. Tomorrow, perhaps. Today I must write to my mother if the letter is to catch the packet.

BENJAMIN WEST: Do you write to your parents regularly?

SAMUEL MORSE: Yes, sir, I do. I'm not ashamed to admit that I get a bit homesick at times. I only wish that I didn't have to wait so long for their replies.

I've often thought how wonderful it would be if they could receive my letters the moment I am writing them. But three thousand miles are not passed over in an instant, and we must wait for long weeks before we can hear from each other.

This wish of young Samuel F. B. Morse was almost prophetic. But the miraculous achievement for which he vaguely yearned in 1811 remained little more than a wish for many years. The word "telegraph" had already been used to describe an instrument that could instantly transmit messages, but such an instrument was yet to be discovered. Morse continued his studies in London, and on his return to the United States he soon was in demand as a portrait painter. In 1829, he revisited Europe, and during his return voyage to America three years later, a conversation took place which started him on his second career. In the dining saloon of the packet ship *Sully*, Captain Pell commanding, Morse, now forty-one years old, was talking with a group of shipboard acquaintances, among them, Dr. Charles Jackson of Boston and the Captain. . . .

DR. JACKSON: Yes, Mr. Morse, that's what they call an electro-magnet. I obtained it in Paris.

SAMUEL MORSE: An electro-magnet. I've heard of them, but I've never seen one before. The subject of electricity has always fascinated me, Dr. Jackson.

CAPTAIN PELL: And you an artist, Mr. Morse? It seems strange to find an artist interested in science.

SAMUEL MORSE: Why not, Captain Pell? Are the two so far apart? I've always been interested in science. I even specialized for a time in physics when I was in college. I was first introduced to electricity when I was a student at Yale and a group of us grasped hands to receive an electric shock through our bodies simultaneously.

CAPTAIN PELL: Strange looking object this electro-magnet, isn't it? Just a piece of iron shaped like a horseshoe.

SAMUEL MORSE: How does it work, Dr. Jackson?

DR. JACKSON: Copper wire is twisted around as you see. When an electric current is passed through the wire, the iron becomes a magnet.

CAPTAIN PELL: I notice that there is a great deal of wire coiled around. Does there have to be a certain length for it to function?

DR. JACKSON: No. It has been demonstrated that electricity passes instantaneously over any length of wire.

SAMUEL MORSE: The velocity isn't retarded at all by the length?

DR. JACKSON: Faraday has lately proved that it is not retarded, Mr. Morse. He has confirmed the discovery of our own Benjamin Franklin, who stretched a wire across the Schuylkill River and received a

spark on one bank the instant it was transmitted from the other.

SAMUEL MORSE: (*to himself*) If the presence of electricity can be made visible in any part of the circuit—yes, yes—that's possible. Excuse me, gentlemen, I—Electricity passes instantaneously over any length of wire—

DR. JACKSON: What's the matter, Mr. Morse?

SAMUEL MORSE: (*still to himself*) An electro-magnetic machine to transmit messages—it *is* possible. And over the wire, by breaking the circuit, signals could be sent—

CAPTAIN PELL: Is everything all right, Mr. Morse?

SAMUEL MORSE: Everything is wonderful, Captain Pell! You know how they signal in France by a semaphore system—letters represented by signs. Well, I believe it possible to send signals along a wire—the spark one sign, its absence another—the time of its absence another—

CAPTAIN PELL: Signals along a wire—

SAMUEL MORSE: Look—I'll draw it for you in my sketch book! A code could be worked with numbers to correspond to words—can you imagine, Captain—instantaneous communication—think what it could mean! It could reassure the anxieties of one's loved ones, relieve an innocent man—summon aid in case of sickness!

CAPTAIN PELL: Wonderful—if possible, Mr. Morse!

SAMUEL MORSE: I'll make it possible. Captain, should you hear of the telegraph one of these days as the wonder of the world, remember the discovery was made on board the good ship *Sully*.

On his return to the United States, Morse wanted to begin work on his telegraph. He planned to use the money he made as a painter for his experiments. But other artists had become popular during his stay in Europe and he found it difficult to earn a living. He taught art privately, but his pupils were few. Then, in 1835, when he was forty-four, he received an appointment as professor of the Literature of the Arts of Design in the newly formed New York University, in Washington Square, New York City. This position gave him a small income and rooms in the main building of the University, which was still in the process of construction. A friend of his, Mr. Stebbins, called on him one day and was surprised to see the strange maze of wires that Morse had strung about his room. . . .

MR. STEBBINS: Morse, what in the world are you doing in this place?

SAMUEL MORSE: My good friend, I am experimenting—with electricity.

MR. STEBBINS: Electricity! I thought you were a portrait painter!

SAMUEL MORSE: Well, as you remarked, the building isn't quite finished. My students are so few I have time for other things—experimenting—

MR. STEBBINS: But, this labyrinth of wires—what's the explanation?

SAMUEL MORSE: The wires? Why those, my friend—those wires and this framework are the world's first practical telegraph—watch me send a message from one end of the wire to the other!

Financial aid and practical assistance from Alfred Vail enabled Morse to make a demonstration of his invention in Washington in 1838. Encouraged by the congressional committee, Morse hurried to Europe to obtain foreign patents, leaving his American affairs in the hands of his friends. Failing in his European mission, he returned to America to find that his invention had practically been forgotten. Again he was forced to become a teacher of art. Down to his last dollar, he was talking with one of his pupils . . .

PUPIL: How am I getting along, Mr. Morse?

SAMUEL MORSE: Excellently, my boy, but—I'm sorry to say that your quarterly payment is past due. How are you for money?

PUPIL: I'm sorry, Mr. Morse, but—I've been disappointed. I expect some money from home, but it won't reach me until next week.

SAMUEL MORSE: Next week! Hm. I shall be dead by that time.

PUPIL: Dead, sir?

SAMUEL MORSE: Yes—dead from starvation.

PUPIL: Oh, Mr. Morse, I didn't know. I'm so sorry. Would—would ten dollars be of any service?

SAMUEL MORSE: Ten dollars would save my life, my boy. I haven't had a meal for twenty-four hours!

Morse then planned a last desperate effort to arouse public interest in his invention. One morning, a New York newspaper announced that Morse's invention would be in operation between Castle Garden on the Battery, New York City, and Governor's Island—a submarine telegraph. Doubters were invited to witness this new marvel. And on the morning of October 19, 1842, a curious crowd gathered outside Castle Garden. Morse was talking with his friend Stebbins. The crowd was waiting. . . .

MR. STEBBINS: (*in a low voice*) It's a big crowd, Morse.

SAMUEL MORSE: That's what I hoped for.

MR. STEBBINS: But are you *sure*, are you positive that you'll succeed?

SAMUEL MORSE: I see no reason for failure. Last night I laid a cable between here and Governor's Island—almost a mile of copper wire, insulated with pitch, tar and rubber. . . .

MR. STEBBINS: I hope nothing goes wrong.

VOICE FROM CROWD: (*angrily*) Hey—when do we start?

SAMUEL MORSE: (*holding up his hand*) Ladies and gentlemen! I thank you all for coming. You are invited to witness a work of science that is destined to accomplish a complete revolution in the mode of transmitting intelligence throughout the civilized world. With this instrument, I will exchange messages with Professor Gale who is at a similar instrument on Governor's Island. These messages will be transmitted instantaneously. If you will listen quietly, you will be able to hear my question, and his reply. First, I will send my message. Like this. Now, we will receive the reply. In just a moment, you will hear the reply. . . . In just a moment. . . .

VOICE: I thought you said we'd hear the reply at once!

SAMUEL MORSE: You will. Just be patient.

(*low*)

Stebbins, something's gone wrong.

MR. STEBBINS: Finley, Finley—look—there! That's why you aren't getting any reply.

SAMUEL MORSE: What?

MR. STEBBINS: See that boat between here and the island! They've just raised anchor, and if I'm not mistaken that's your cable that's caught in it! They're pulling it in!

SAMUEL MORSE: But that shouldn't matter—  
Oh—now I see—the cable has been cut!

VOICE I: How about the reply!

VOICE II: How about that instantaneous message!

SAMUEL MORSE: My friends, I must ask you to bear with me! The cable has been cut! Give me time to repair it, and I will continue with my demonstration.

VOICE I: Not for me, Morse!

VOICE II: Fraud! Fraud!

(*jeers*)

MR. STEBBINS: What are you going to do, Morse?

SAMUEL MORSE: What can I do? Try again!

Morse refused to be beaten. The lesson of persistence that he had learned in boyhood made him continue the struggle for recognition. He managed to get to Washington, and once more he placed his invention in the Capitol, where day after day he stood, trying to explain it to indifferent members of Congress. Finally, an appropriation bill for the Washington to Baltimore telegraph line passed the House of Representatives and went to the Senate. But the Senate delayed. Its session drew towards a close, without successful action on the bill. The closing day of Congress arrived—March third, 1843. Samuel Morse was now fifty-two years old, a widower with four children to support. He was sitting in the gallery—a tall, gaunt figure. . . .

FRIEND: Cheer up, Morse. Your bill is bound to be brought up, any minute now.

SAMUEL MORSE: It's too late. I know it. The telegraph bill will be lost.

FRIEND: But the House passed it. The Senate will *have* to bring it up.

SAMUEL MORSE: They won't reach it. There are too many appropriation bills that *have* to be passed.

FRIEND: I know—post offices and bridges. That's all I've heard for the past hour. But post offices and bridges aren't as important as the telegraph.

SAMUEL MORSE: There have always been post offices and bridges—and there always will be. The telegraph is too new.

FRIEND: Well, if your appropriation doesn't pass at this session, it's bound to be passed at the next one.

SAMUEL MORSE: And that, my good friend, will be too late.

FRIEND: Why—what do you mean?

SAMUEL MORSE: I mean that this is my last stand. I've staked everything on the bill passing at this session. I'm not a young man—I have no money. The telegraph will go on, yes. It can't be stopped. But I—look, the janitors are lighting the lamps!

FRIEND: You're leaving?

SAMUEL MORSE: Yes—before I know the worst. Before the session closes, that door shall close after me—and my telegraph.

FRIEND: Wait! Here comes Senator Huntington

of Connecticut to speak to you. Perhaps he has good news.

SAMUEL MORSE: Perhaps. Good evening, Senator Huntington.

SENATOR HUNTINGTON: Good evening, Professor Morse. I saw you up here, and—

SAMUEL MORSE: What news, Senator?

SENATOR HUNTINGTON: I'm sorry, Professor Morse. The session is about to end. We cannot bring the telegraph bill to a vote in time.

SAMUEL MORSE: There is no chance then?

SENATOR HUNTINGTON: None, I'm sorry to say.

SAMUEL MORSE: Thank you for your efforts, Senator. And now I'll bid you good night, gentlemen.

FRIEND: I'll go with you, Finley.

SAMUEL MORSE: No, my friend. I'll go alone. Good-night.

FRIEND: Poor man. I pity him from the bottom of my heart.

SENATOR HUNTINGTON: I'm more sorry than I can say. It's tragic to see the shattering of a great dream.

Samuel Morse returned to his boarding house bitterly disappointed. In the morning he packed his few belongings intending to take an early train to New York. He was having breakfast when his land-

lady announced a young lady who desired to speak to him. . . .

SAMUEL MORSE: What's that? A young lady—asking for *me*?

LANDLADY: Yes, Mr. Morse. A Miss Annie Ellsworth.

SAMUEL MORSE: Annie Ellsworth? Oh—yes, of course. The daughter of my old friend, the Commissioner of Patents.

LANDLADY: Shall I show her in, sir?

SAMUEL MORSE: Why yes. Yes—of course.

LANDLADY: Come in, please, Miss.

ANNIE ELLSWORTH: (*coming in*) Thank you. Good morning, Mr. Morse. I have come to congratulate you.

SAMUEL MORSE: To congratulate me? This is no morning for me to appreciate joking, my dear. Even yours.

ANNIE ELLSWORTH: I mean on the passage of your bill!

SAMUEL MORSE: Oh no, my child. You are mistaken. I was in the Senate Chamber till the lamps were lighted and my friends in the Senate assured me that there was no chance.

ANNIE ELLSWORTH: Father was there at midnight when they adjourned, and he saw the bill passed. I asked him if I might be the one to tell you.

SAMUEL MORSE: My dear child. I can't believe it!

ANNIE ELLSWORTH: Mr. Morse—aren't you happy?

SAMUEL MORSE: Happy! Of course I am! I'm just trying to comprehend it—that's all. The news has been such a long time coming.

ANNIE ELLSWORTH: But it *has* come, Mr. Morse! You can build your line from here to Baltimore. Am I the first to bring you the news?

SAMUEL MORSE: Yes, you are the first—and I'm going to make you a promise. You shall dictate the first official message!

Financed by the appropriation, the telegraph line between Washington and Baltimore was built. On May 24, 1844, in the chamber of the Supreme Court in the Capitol, a throng of Government officials was assembled. Morse stood by his telegraph instrument in conversation with Governor Seymour of Connecticut.

GOVERNOR SEYMOUR: You're nervous, Mr. Morse. Why?

SAMUEL MORSE: So much depends on this first public appearance of the telegraph.

GOVERNOR SEYMOUR: So it does. The eyes of the world are on you today. What message shall you send?

SAMUEL MORSE: I promised a young lady that she should choose the first dispatch. Miss Annie Ellsworth, daughter of my good friend, the patent commissioner.

GOVERNOR SEYMOUR: Annie Ellsworth. She's from Hartford—my state. I'm delighted.

SAMUEL MORSE: She and her father and mother are coming through the crowd now. Please let Miss Ellsworth through, gentlemen! Thank you.

ANNIE ELLSWORTH: Good morning, Mr. Morse. Good morning, Governor.

SAMUEL MORSE: Well, Annie, have you chosen the message that we're going to send?

ANNIE ELLSWORTH: Yes, sir. Mother and I chose it from the Bible. It's part of a verse from the Book of Numbers. It's written here. I hope it's all right.

SAMUEL MORSE: Let me see it.

GOVERNOR SEYMOUR: Read it, Professor Morse.

SAMUEL MORSE: "What hath God wrought!"

ANNIE ELLSWORTH: Do you think it suitable?

SAMUEL MORSE: Most fitting, my dear. You couldn't have pleased me more. This telegraph in truth *is* God's work. I am but the humble instrument of His hand. Now I must send the message—

(*to assembly*)

Ladies and gentlemen, I shall now transmit over the magnetic telegraph a dispatch to Mr. Vail, my associate in Baltimore, who will receive it and repeat it back here. The first message to be publicly



sent by telegraph has been chosen by this young friend of mine—"What hath God wrought!" With your permission, gentlemen, I shall send the dispatch.

The famous message was sent and received. After years of disappointment, perseverance had brought success and honor at last to Samuel F. B. Morse. He lived to see his statue unveiled in Central Park, New York, in 1871.

Today, the paintings of Samuel Finley Breese Morse may be seen in the Metropolitan Museum of Art in New York City and in many other art museums in the world. And his telegraph, great in its own right, was also the forerunner of those other important inventions, the telephone and the radio. Patience and persistence brought him fame in two distinct and varied careers and his is an honored place in the procession of great Americans.