THE LIFE STORY OF ELMER BURLINGAME

ELMER BURLINGAME
Inventor of the Burlingame Telegraphing Typewriter.

THE story of Elmer Burlingame is an inspiration to the man who wants to get on in this world, a guiding star to the individual who wants to do things, a stimulus to the person who wants to learn more, earn more, and round out life's journey in ease and comfort.

In the autumn of 1832, Professor Samuel F. B. Morse first conceived his idea of telegraphy. After experimenting with electro-magnets, it occurred to him that it might be possible to send a series of electrical impulses over a wire and, if so, that these impulses might be made to convey a meaning.

Accordingly he acted on this belief and five years later, in 1837, gave a public demonstration of telegraphy, using the same system that is in vogue today, namely, dots and dashes to represent letters, numerals, punctuation marks and characters. All are familiar with what Morse has done for civilization, but few know that in all these seventy odd years since the invention of the telegraph, but little improvement has been made. Practically speaking, the only improvement is the development of multiple telegraphy. A system has been devised by which four messages can be sent at one time, two each way, over a single wire, but the principle as laid down by Morse is identically the same.

This was the situation that confronted Elmer Burlingame when he took up the study of electricity. He wondered at it when but a boy in his teens." Human effort could not be improved upon; and the mechanical side of telegraphy seemed to have about reached the limit with the present system.

He thought and studied the question from every angle. He had a talent for electrical experiments. When only a boy of fourteen years of age he had successfully installed according to contract, a burglar alarm system in a large flour mill in his home town.

In 1898, while attending high school, he got his idea. Why not devise a means for sending a Roman letter over a wire instead of the usual dots and dashes which represent a letter and which only an expert can interpret? Why could not two ordinary typewriters be connected with a wire so that when the letter "A" was struck on the keyboard of the sending machine, the same letter would strike on the receiving typewriter? Here was his cue.

He was only nineteen and was without funds for experimental purposes. So he waited. A year later, upon graduation, he secured employment from the local telephone company and acted in the capacity of "trouble man"—he who responded to complaints and repaired the offending instrument. He was advanced from time to time during his eight years of telephone work, and upon severing his connection occupied the position of toll line wire chief, and was subsequently the manager of all long distance wires.

Through these years of employment he kept up his experiments, denying himself every entertainment and luxury that he might have money for the necessary electrical supplies for conducting his investigation. Only he knows how he plodded and worked when off duty. And many a night he was in his little home laboratory until the wee hours of the morning.

Perseverance and pluck won. He overcame every obstacle and in 1905 success crowned his efforts. He had not sufficient money to purchase a typewriter, so made a keyboard of wood, crude in the extreme but capable of serving the purpose.

He had become familiar with the principles governing wireless telegraphy, so decided to apply it to his invention. He built a coil by hand that threw an eighteen inch spark, and erected two poles thirty miles apart—one in La Porte, the other in South Bend, Indiana. Upon completion of his apparatus he sent seven letters of the alphabet over this distance and they were recorded exactly on the receiving machine. He had witnesses to note his achievement. Soon the community was apprised of what had occurred.

The La Porte *Herald* and Indianapolis *Star* gave many columns to the project and the electrical world was at once astounded. Papers everywhere published the news and Burlingame was started on the road to fame. That concentration of thought, those times of self denial, those days and nights of study and work, had earned him a reward.

He succeeded in securing a typewriter and though he still used his original wooden keys for sending, he successfully transmitted over the distance in 1907 several other letters of the alphabet, together with some of the numerals, characters and punctuation marks, just as they are used on the keyboard of all typewriters.

Here was the birth of the Telegraphing Typewriter. Burlingame had taken up the work where Morse left off and offered to the world a new and better system, a system that needed no human receiver, a system so simple in its operation that any one understanding the A B C's could send a message or read one at the receiving end as fast as it came from the machine.

The publicity given the invention, particularly by scientific and technical journals, attracted the attention of a number of San Francisco business men who formed a company and supplied young Burlingame with a complete experimental shop where he could make a few sets of machines.

Recently these machines have been exhibited in San Francisco, Stockton, Los Angeles, and other Pacific Coast cities, where they were put to a test by some of the best known electrical experts in the United States. Their opinions were unanimous that Burlingame had reached the goal which has been the dream of inventors for years, opening up new fields which are beyond the achievements possible with any other telegraph machine.

The shop models, or demonstrating machines, of the Burlingame Company are now being exhibited in Middle Western and Eastern cities. Mr. Burlingame has moved his headquarters to Boston, Mass., where the Burlingame Company is now starting the manufacture of the machines. The first factory is now being established at 169 Oliver street, Boston, in the heart of the manufacturing district, and is under the direct supervision of Elmer Burlingame.

He has installed his latest model long distance telegraph machine on a wire (leased from one of the telegraph companies) running from Boston, Mass., to Providence, R. I., and as the BULLETIN goes to press he is about ready to give to New England the same astounding demonstrations that have taken the western part of the country by storm.

What Burlingame has accomplished thus far has made his place secure forever in the fore-front of the world's greatest inventive geniuses. The achievements of Morse, Bell, Edison, Marconi, and other electrical experts, have justly won world-wide recognition, for they have indeed hastened the progress of civilization to a wonderful degree by their improved methods of communication. But even their victories in the realm of electrical science will seem comparatively small when the epoch-making possibilities of Burlingame's invention are realized.

That this will be witnessed at an early date is evidenced by the excellent progress made thus far and also by the rapid growth of interest in the invention among the foremost scientific experts of the world, who do not hesitate to accord to Elmer Burlingame the fullest measure of praise for his conception that even to the most untutored mind has all the elements of a stupendous attainment.

Just as water seeks its level so does every labor-and-thought-saving invention replace a slower, more costly and less effectual system.