

## The Young Telegraph Operator

by William H. Meadowcroft

After Edison's expulsion from the train with his laboratory and belongings, his career as a newsboy came to a sudden close. But, while he felt some disappointment, he was not discouraged and was none the less busy. As we have seen, he published his local paper for a while and also continued his chemical experiments at home. In addition, he plunged deeply into the study of telegraphy under Mr. Mackenzie's tuition.

Edison took to telegraphy enthusiastically, giving to it no less than eighteen hours a day. After some months he had made such progress that he put up a telegraph line from the station to the village, about a mile distant, and opened an office in a drug store; but the business there was very light and the office was not continued long.

A little later he became the regular operator at Port Huron. The office was in the store of a Mr. M. Walker, who sold jewelry and also newspapers and periodicals. Edison was to be found at the office both day and night, and slept there.

He says: "I became quite valuable to Mr. Walker. After working all day I worked at the office nights as well, for the reason that 'press reports' came over one of the wires until 3 A.M., and I would cut in and copy it as well as I could, to become proficient more rapidly. The goal of the rural telegraph operator was to be able to take press. Mr. Walker tried to get my father to apprentice me at twenty dollars per month, but they could not agree. I then applied for a job on the Grand Trunk Railroad as a railway operator, and was given a place, nights, at Stratford Junction, Canada."

Many years afterward Mr. Walker described the boy of sixteen as engrossed intensely in his experiments and scientific reading. The telegraph office was not a busy one, but sometimes messages taken in would remain unsent while Edison was in the cellar busy on some chemical problem.

He would be seen at times reading a scientific paper and then disappearing to buy a few sundries for experiments. Returning from the drug store with his chemicals, he would not be seen again until required by his duties, or until he had found out for himself, if possible, the truth of the statement he had been reading. If wanted for his experiment, he did not hesitate to make free use of the watchmaker's tools that lay on the table in the front window. His one idea was to do quickly when he wanted to do; and this tendency is still one of his marked characteristics.

The telegrapher's position at Stratford Junction, Canada, was taken by Edison in 1863, when he was sixteen years old, and paid him twenty-five dollars per month. In speaking of it he has since remarked that there was little difference between the telegraph of that time and that of to-day. He says: "The telegraph men couldn't explain how it worked, and I was always trying to get them to do so. I think they couldn't. I remember the best explanation I got was from an old Scotch line repairer employed by the Montreal Telegraph Company, which operated the railroad wires. He said that if you had a dog like a dachshund, long enough to reach from Edinburgh to London, if you pulled his tail in Edinburgh he would bark in London. I could understand that, but I never could get it through me what went through the dog or over the wire."

Edison was ever keenly anxious to add to his stock of experimental apparatus, as an incident of

this period shows: "While working at Stratford Junction," he says, "I was told by one of the freight conductors that in the freight-house at Goodrich there were several boxes of old broken-up batteries. I went there and found over eighty cells of the well-known Grove nitric-acid battery. The operator there, who was also agent, when asked by me if I could have the electrodes of each cell, which were made of sheet platinum, gave his permission readily, thinking they were of tin. I removed them all, and they amounted to several ounces in weight. Platinum even in those days was very expensive, costing several dollars an ounce, and I owned only three small strips. I was overjoyed at this acquisition, and those very strips and the reworked scrap are used to this day in my laboratory, over forty years later."

It was while he was employed as a night operator at Stratford Junction that Edison's inventiveness was first displayed. In order to make sure that the operators were not asleep they were required to send the signal "6" to the train dispatcher's office every hour during the night. Now, Edison spent all day in study and experiment, but he needed sleep, just as any healthy youth does, and so he made a small wheel with notches on the rim and attached it to the clock and line. At night he connected it with the circuit, and at each hour the wheel revolved and automatically sent in the dots required for "sixing."

The invention was a success, but the train dispatcher soon noticed that frequently, in spite of the regularity of the report, Edison's office could not be raised even if a message were sent immediately after. An investigation followed, which revealed this ingenious device, and he received a reprimand.

A serious occurrence that might have resulted in accident drove him soon after from Canada, although the youth could hardly be held to blame for it. Edison says: "This night job just suited me, as I could have the whole day to myself. I had the faculty of sleeping in a chair any time for a few minutes at a time. I taught the night yardman my call, so I could get half an hour's sleep now and then between trains, and in case the station was called the watchman would awaken me. One night I got an order to hold a freight train, and I replied that I would. I rushed out to find the signalman, but before I could find him and get the signal set the train ran past. I ran to the telegraph office, and reported that I could not hold her. The train dispatcher, on the strength of my message that I would hold the train, had permitted another to leave the last station in the opposite direction. There was a lower station near the junction, where the day operator slept. I started for it on foot. The night was dark, and I fell into a culvert and was knocked senseless."

Fortunately, the two engineers saw each other approaching and stopped in time to prevent an accident. Edison, however, was summoned to the general manager's office to be tried for neglect of duty. During the trial two Englishmen called, and while they were talking with the manager the youthful operator slipped out, jumped on a freight train going to Sarnia, and was not happy until the ferry-boat from Sarnia had landed him safe on the Michigan shore.

The same winter, of 1863-64, while at Port Huron, Edison had a further opportunity of showing his ingenuity. An ice-jam had broken the telegraph cable laid in the bed of the river across to Sarnia, and communication was interrupted. The river is three-quarters of a mile wide, and could not be crossed on foot, nor could the cable be repaired.

Edison suggested using the steam whistle of a locomotive to give the long and short signals of the Morse code. An operator on the Sarnia shore was quick enough to understand the meaning of the strange whistling, and thus messages were sent in wireless fashion across the ice-floes in the river.

Young Edison had no inclination to return to Canada after his late experience there. He decided,

however, that he would stick to telegraphy as a business, and, after a short stay at home in Port Huron, set out to find work as an operator in another city. And thus he commenced the roaming and drifting life which in the next five years took him all over the Middle States.

At this time the Civil War was in progress, and many hundreds of skilled operators were at the front with the army, engaged exclusively in government service. Consequently there was a great scarcity of telegraphers throughout all the cities and towns of the country. For this reason it was not difficult for an operator to get work wherever he might go. Thus one might gratify a desire to travel and get experience without running much risk of privation.

There were a great many others besides Edison who wandered about from city to city, working awhile in one place and drifting to another. As a rule, they were bright, happy-go-lucky fellows, full of the spirit of good comradeship, and willing to share bed, board, and pocket-money with those who might temporarily be less fortunate than themselves.

Many of them used telegraphy as a stepping-stone to better themselves in life, while others, unfortunately, became dissipated, and, becoming unreliable through drink, could not hold a position for long. Had Edison been by nature less persistent and industrious than he was, this miscellaneous companionship might have tended to wreck his career, but all through his life, from boyhood, he has been particularly abstemious and has had a contempt for the wastefulness of time, money, and health entailed by the drink habit.

Throughout this period of his life Edison, although wandering from place to place, never ceased to study, explore, and experiment. Referring to this beginning of his career, he mentions a curious fact that throws light on his ceaseless application. "After I became a telegraph operator," he says, "I practised for a long time to become a rapid reader of print, and got so expert I could sense the meaning of a whole line at once. This faculty, I believe, should be taught in schools, as it appears to be easily acquired. Then one can read two or three books in a day, whereas if each word at a time only is sensed reading is laborious."

During this wandering period of his life Edison made many friends, one of the earliest of whom was Milton F. Adams, who had a strange career. Of him Edison says: "Adams was one of a class of operators never satisfied to work at any place for any great length of time. He had the 'wanderlust.' After enjoying hospitality in Boston in 1868-69, on the floor of my hall bedroom, which was a paradise for the entomologist, while the boarding-house itself was run on the Banting system of flesh reduction, he came to me one day and said: 'Good-by, Edison, I have got sixty cents, and I am going to San Francisco.' And he did go. How, I never knew personally. I learned afterward that he got a job there, and then within a week they had a telegraphers' strike. He got a big torch and sold patent medicine on the streets at night to support the strikers. Then he went to Peru as partner of a man who had a grizzly bear which they proposed entering against a bull in the bull-ring in that city. The grizzly was killed in five minutes, and so the scheme died. Then Adams crossed the Andes, and started a market report bureau in Buenos Ayres. This didn't pay, so he started a restaurant in Pernambuco, Brazil. There he did very well, but something went wrong (as it always does to a nomad), so he went to the Transvaal, and ran a panorama called 'Paradise Lost' in the Kaffir kraals. This didn't pay, and he became the editor of a newspaper; then he went to England to raise money for a railroad in Cape Colony. Next I heard of him in New York, having just arrived from Bogota, United States of Columbia, with a power of attorney and two thousand dollars from a native of that republic, who applied for a patent for tightening a belt to prevent it from slipping on a pulley—a device which he thought a new and great invention, but which was in use ever since machinery was invented. I gave Adams then a position as salesman for electrical

apparatus. This he soon got tired of, and I lost sight of him."

Source:

Meadowcroft, William. "The Young Telegraph Operator." *The Boy's Life of Edison*. New York: Harper & Brother Publishers. Electronic.