



# A Photographic Talk with Edison

## A Quiet Interview in his Laboratory

The Story of 52 Years  
of Magnificent Work

by Theodore Dreiser

## SUCCESS

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*The photographs of Mr. Edison . . . were taken expressly for SUCCESS with his permission.*

To discover the opinion of Thomas A. Edison, concerning what makes and constitutes success in life is an easy matter, if one can only discover Mr. Edison. I camped three weeks in the vicinity of Orange, N. J., awaiting the opportunity to come upon the great inventor and voice my questions. It seemed a rather hopeless and discouraging affair until he was really before me; but, truth to say, he is one of the most accessible of men, and only reluctantly allows himself to be hedged in by the pressure of endless affairs. "Mr. Edison is always glad to see any visitor," said a gentleman who is continually with him, "except when he is hot on the trail of something he has been working for, and then it is as much as a man's head is worth to come in on him." He certainly was not hot on the trail of anything on the morning when, for seemingly the tenth time, I rang at the gate in the fence which surrounds the laboratory on Valley Road, Orange. A young man appeared, who conducted me up the walk to the elegant office and library of the great laboratory. It is a place, this library, not to be passed through without thought, for with a further store of volumes in his home, it contains one of the most costly and well-equipped scientific libraries in the world; the collection of writings on patent laws and patents, for instance, is absolutely exhaustive. It gives, at a glance, an idea of the breadth of the thought and sympathy of this man who grew up with scarcely a common school education.

On the second floor, in one of the offices of the machine-shop, I was asked to wait, while a grimy youth disappeared with my card, which he said he would “slip under the door of Mr. Edison’s office.” “Curious,” I thought: “what a lord this man must be if they dare not even knock at his door!”

Thinking of this and gazing out the window, I waited until a working man, who had entered softly, came up beside me. He looked with a sort of “Well, what is it?” in his eyes, and quickly it began to come to me that the man in the sooty, oil-stained clothes was Edison himself. The working garb seemed rather incongruous, but there was no mistaking the broad forehead, with its shock of blackish hair streaked with gray. The gray eyes, too, were revelations in the way of alert comprehensiveness.

“Oh,” was all I could get out at the time.

“Want to see me?” he said, smiling in the most youthful and genial way.

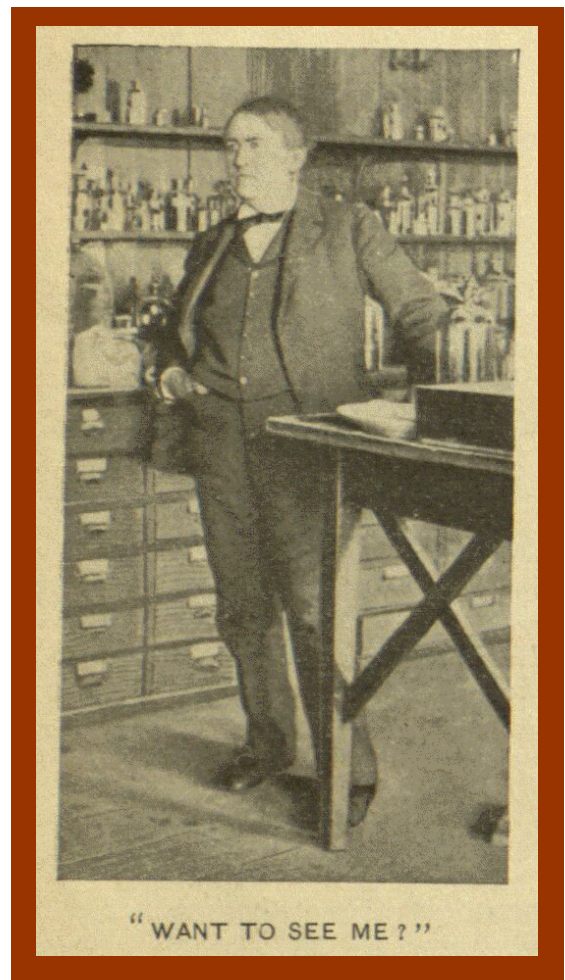
“Why, — yes, certainly, to be sure, I stammered.

He looked at me blankly.

“You’ll have to talk louder,” said an assistant who worked in another portion of the room; “he don’t hear well.”

This fact was new to me, but I raised my voice with celerity and piped thereafter in an exceedingly shrill key. After the usual humdrum opening remarks, in which he acknowledged with extreme good nature his age as fifty-two years, and that he was born in Erie county, O[hio], of Dutch parentage, the family having emigrated to America in 1730, the particulars began to grow more interesting. His great-grandfather, I learned, was a banker of high standing in New York; and, when Thomas was but a child of seven years, the family fortune suffered reverses so serious as to make it necessary that he should become a wage-earner at an unusually early age, and that the family should move from his birth-place to Michigan.

“Did you enjoy mathematics as a boy?” I asked.



“Not much,” he replied. “I tried to read Newton’s ‘Principia’ at the age of eleven. That disgusted me with pure mathematics, and I don’t wonder now. I should not have been allowed to take up such serious work.”

“You were anxious to learn?”

“Yes, indeed. I attempted to read through the entire Free Library at Detroit, but other things interfered before I had done.”

“Were you a book-worm and dreamer?” I questioned.

“Not at all,” he answered, using a short, jerky method, as though he were unconsciously checking himself up. “I became a newsboy, and liked the work. Made my first *coup* as a newsboy in 1869.”

“What was it?” I ventured.

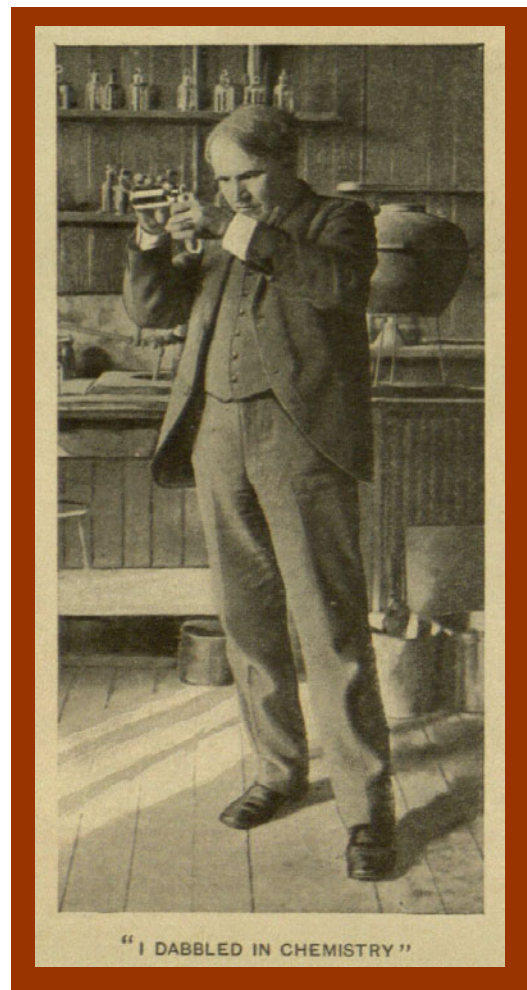
“I bought up on ‘futures’ a thousand copies of the ‘Detroit Free Press’ containing important war news,—gained a little time on my rivals, and sold the entire batch like hot cakes. The price reached twenty-five cents a paper before the end of the route,” and he laughed. “I ran the ‘Grand Trunk Herald,’ too, at that time — a little paper I issued from the train.”

“When did you begin to be interested in invention?” I questioned.

“Well,” he said, “I began to dabble in chemistry at that time. I fitted up a small laboratory on the train.”

In reference to this, Mr. Edison subsequently admitted that, during the progress of some occult experiments in this work-shop, certain complications ensued in which a jolted and broken bottle of sulphuric acid attracted the attention of the conductor. He, who had been long suffering in the matter of unearthly odors, promptly ejected the young devotee and all his works. This incident would have been only amusing but for its relation to, and explanation of, his deafness. A box on the ear, administered by the irate conductor, caused the lasting deafness.

“What was your first work in a practical line?” I went on.



“A telegraph line between my home and another boy’s, I made with the help of an old river cable, some stove-pipe wire, and glass-bottle insulators, I had my laboratory in the cellar and studied telegraphy outside.”

“What was the first really important thing you did?”

“I saved a boy’s life.”

“How?”

“The boy was playing on the track near the depot. I saw he was in danger and caught him, getting out of the way just in time. His father was station-master, and taught me telegraphy in return.”

Dramatic situations appear at every turn of this man’s life, though, temperamentally, it is evident that he would be the last to seek them. He seems to have been continually arriving on the scene at critical moments, and always with the good sense to take things in his own hands. The chance of learning telegraphy only gave him a chance to show how apt a pupil he was, and the railroad company soon gave him regular employment. He himself admits that, at seventeen, he had become one of the most expert operators on the road.

“Did you make much use of your inventive talent at this time?” I questioned.

“Yes,” he answered. “I invented an automatic attachment for my telegraph instrument which would send in the signal to show I was awake at my post, when I was comfortably snoring in a corner. I didn’t do much of that, though,” he went on, “for some such boyish trick sent me in disgrace over the line into Canada.”

“Were you there long?”

“Only a winter. If it’s incident you want, I can tell you one of that time. The place where I was and Sarnier, the American town, were cut off from telegraph and other means of communication by the storms until I got at a locomotive whistle and tooted a telegraphic message. I had to do it again and again, but eventually they understood over the water and answered in the same way.”



According to his own and various recorded accounts, Edison was successively in charge of important wires in Memphis, Cincinnati, New Orleans, and Louisville. He lived in the free-and-easy atmosphere of the tramp operators — a boon companion with them, yet absolutely refusing to join in the dissipations to which they were addicted. So highly esteemed was he for his honesty that it was the custom of his colleagues, when a spree was on hand, to make him the custodian of those funds which they felt obliged to save. On a more than usually hilarious occasion, one of them returned rather the worse for wear, and knocked the treasurer down on his refusal to deliver the trust money: the other depositors, we may be glad to note, gave the ungentlemanly tippler a sound thrashing.

“Were you good at saving your own money?” I asked.

“No,” he said, smiling. “I never was much for saving money, as money. I devoted every cent, regardless of future needs, to scientific books and materials for experiments.”

“You believe that an excellent way to succeed?”

“Well, it helped me greatly to future success.”

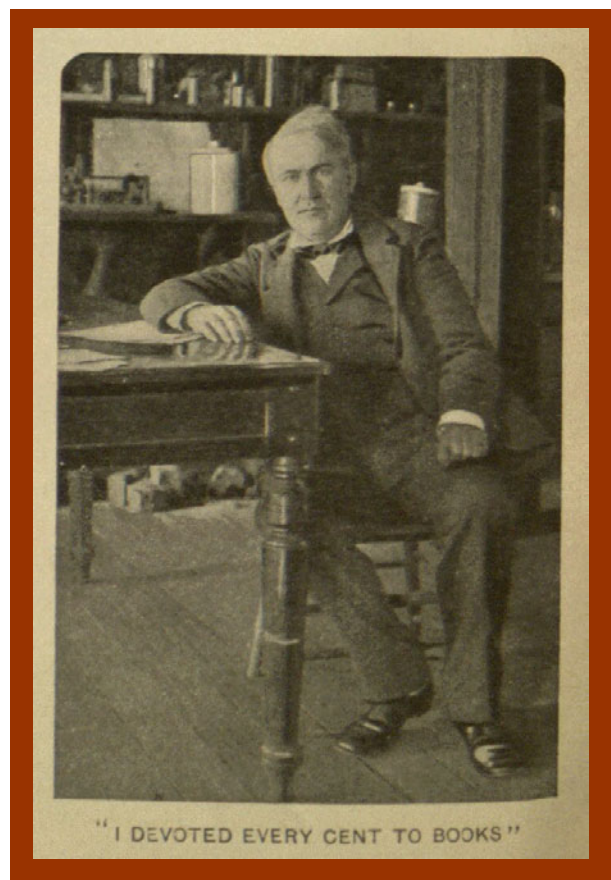
“What was your next invention?” I inquired.

“An automatic telegraph recorder — a machine which enabled me to record dispatches at leisure, and send them off as fast as needed.”

“How did you come to hit upon that?”

“Well, at the time, I was in such straits that I had to walk from Memphis to Louisville. At the Louisville station they offered me a place. I had perfected a style of handwriting which would allow me to take legibly from the wire, long hand, forty-seven and even fifty-four words a minute, but I was only a moderately rapid sender. I had to do something to help me on that side, and so I thought out that little device.”

Later, he pointed out an article by one of his biographers, in which a paragraph, referring to this Louisville period, says: —



“True to his dominant instincts, he was not long in gathering around him a laboratory, printing office, and machine shop. He took press reports during his whole stay, including, on one occasion, the Presidential message, and veto of the District of Columbia, by Andrew Johnson, and this at one sitting, from 3:30 P.M. to 4:30 A.M.

“He then paragraphed the matter he had received over the wires, so that printers had exactly three lines each, thus enabling them to set up a column in two or three minutes’ time. For this, he was allowed all the exchanges he desired, and the Louisville press gave him a state dinner.”

“How did you manage to attract public attention to your ability?” I questioned.

“I didn’t manage,” said the Wizard. “Some things I did created comment. A device that I invented in 1868, which utilized one submarine cable for two circuits, caused considerable talk, and the Franklin telegraph office of Boston gave me a position.”

It is related of this, Mr. Edison’s first trip East, that he came with no ready money and in a rather dilapidated condition. His colleagues were tempted by his “hayseed” appearance to “salt” him, as professional slang terms the process of giving a receiver matter faster than he can record it. For this purpose, the new man was assigned to a wire manipulated by a New York operator famous for his speed. But there was no fun at all. Notwithstanding the fact that the New Yorker was in the game and was doing his most speedy clip, Edison wrote out the long message accurately, and, when he realized the situation, was soon firing taunts over the wire at the sender’s slowness.

“Had you patented many things up to the time of your coming East?” I queried.

“Nothing,” said the inventor ruminatively. “I received my first patent in 1869.”

“For what?”

“A machine for recording votes and designed to be used in the State Legislature.”

“I didn’t know such machines were in use,” I ventured.

“They ar’n’t,” he answered, with a merry twinkle. “The better it worked, the more impossible it was; the sacred right of the minority, you know, — couldn’t filibuster if they used it, — didn’t use it.”

“Oh!”

“Yes, it was an ingenious thing. Votes were clearly pointed and shown on a roll of paper, by a small machine attached to the desk of each member. I was made to learn that such an innovation was out of the question, but it taught me something.”

“And that was?”

“To be sure of the practical need of, and demand for, a machine, before expending time and energy on it.”

“Is that one of your maxims on success?”

“It is.”

In the same year, Edison came from Boston to New York, friendless and in debt on account of the expenses of his experiment. For several weeks he wandered about the town with actual hunger staring him in the face. It was a time of great financial excitement, and with that strange quality of Fortunism, which seems to be his chief characteristic, he entered the establishment of the Law Gold Reporting Company just as their entire plant had shut down on account of an accident in the machinery that could not be located. The heads of the firm were anxious and excited to the last degree, and a crowd of the Wall street fraternity waited about for the news which came not. The shabby stranger put his finger on the difficulty at once, and was given lucrative employment. In the rush of the metropolis, a man finds his true level without delay, especially when his talents are of so practical and brilliant a nature as were this young telegrapher's. It would be an absurdity to imagine an Edison hidden in New York. Within a short time, he was presented with a check for \$40,000 as his share of a single invention — an improved stock printer. From this time a national reputation was assured him. He was, too, now engaged upon the duplex and quadruplex systems — systems for sending two and four messages at the same time over a single wire, — which were to inaugurate almost a new era in telegraphy.

Recalling the incident of the Law Gold Reporting Company, I inquired: “Do you believe what urges a man to greater efforts and so to greater success?”

“It certainly makes him keep a sharp lookout. I think it does push a man along.”

“Do you believe that invention is a gift, or an acquired ability?”

“I think it's born in a man.”

“And don't you believe that familiarity with certain mechanical conditions and defects naturally suggests improvements to any one?”

“No. Some people may be perfectly familiar with a machine all their days, knowing it is inefficient, and never see a way to improve it.”

“What do you think is the first requisite for success in your field, or any other?”

“The ability to apply your physical and mental energies to one problem incessantly without growing weary.”

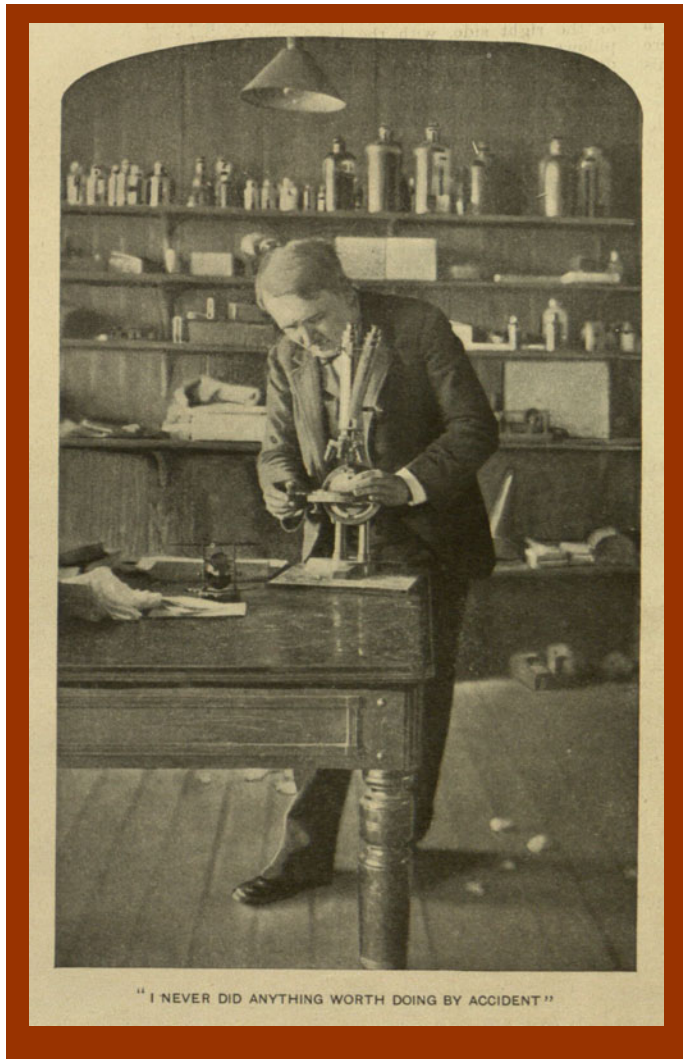
“Do you have regular hours, Mr. Edison?” I asked.

“Oh,” he said, “I do not work hard now. I come to the laboratory about eight o’clock every day and go home to tea at six, and then I study or work on some problem until eleven, which is my hour for bed.”

“Fourteen or fifteen hours a day can scarcely be called loafing,” I suggested.

“Well,” he replied, “for fifteen years I have worked on an average of twenty hours a day.”

That astonishing brain has been known to puzzle itself for sixty consecutive hours over a refractory problem, its owner dropping quietly off into a long sleep when the job was done, to awake perfectly refreshed and ready for another siege. Mr. Dickson, a neighbor and familiar, gives



an anecdote told by Edison which well illustrates his untiring energy and phenomenal endurance. In describing his Boston experience, Edison said he bought Faraday’s works on electricity, commenced to read them at three o’clock in the morning and continued until his room-mate arose, when they started on their long walk to get breakfast. That object was entirely subordinated in Edison’s mind to Faraday, and he suddenly remarked to his friend: “Adams, I have got so much to do, and life is so short, that I have got to hustle,’ and with that I started off on a dead run for my breakfast.”

“Are your discoveries often brilliant intuitions? Do they come to you while you are lying awake nights?” I asked him.

“I never did anything worth doing by accident,” he replied, “nor did any of my

inventions come indirectly through accident, except the phonograph. No, when I have fully decided that a result is worth getting, I go about it, and make trial after trial, until it comes.”



“I have always kept,” continued Mr. Edison, “strictly within the lines of commercially useful inventions. I have never had any time to put on electrical wonders, valuable only as novelties to catch the popular fancy.”

“What makes you work?” I asked with real curiosity. “What impels you to this constant, tireless struggle? You have shown that you care comparatively nothing for the money it makes you, and you have no particular enthusiasm for the attending fame. What is it!”

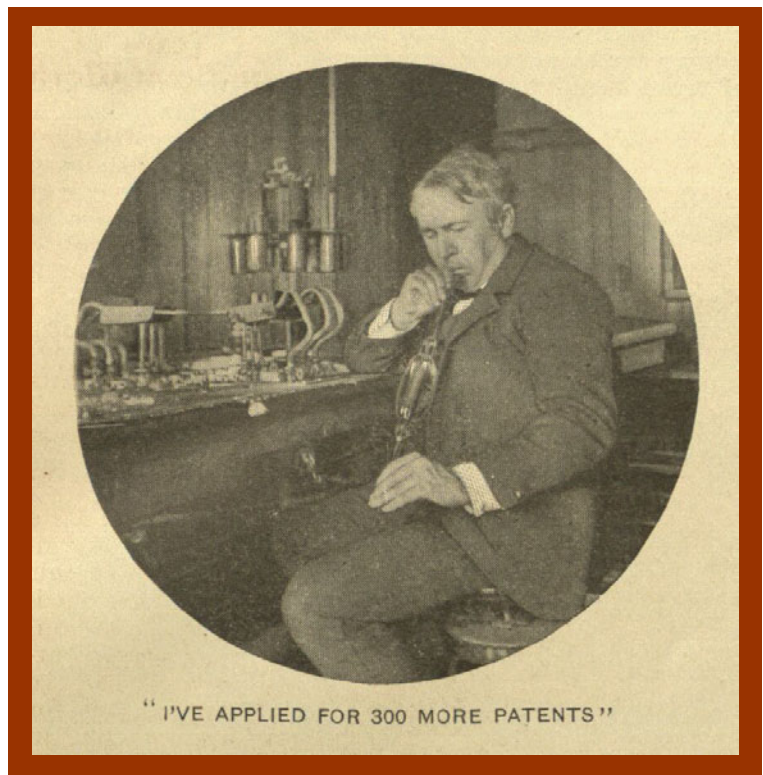
“I like it,” he answered, after a moment of puzzled expression. “I don’t know any other reason. Anything I have begun is always on my mind, and I am not easy while away from it, until it is finished; and then I hate it.”

“Hate it?” I said.

“Yes,” he affirmed, “when it is all done and is a success, I can’t bear the sight of it. I haven’t used a telephone in ten years, and I would go out of my way any day to miss an incandescent light.”

“You lay down rather severe rules for one who wishes to succeed in life,” I ventured, “working eighteen hours a day.”

“Not at all,” he said. “You do something all day long, don’t you? Every one does. If you get up at seven o’clock and go to bed at eleven, you have put in sixteen good hours, and it is certain with most men, that they have been doing something all the time. They have been either walking, or reading, or writing, or thinking. The only trouble is that they do it about a great many things and I do it about one. If they took the time in question and applied it in one direction, to one object, they would succeed. Success is sure to follow such application. The trouble lies in the fact that people do not have an object — one thing to which they stick, letting all else go.”



“You believe, of course,” I suggested, “that much remains to be discovered in the realm of electricity?”

“It is the field of fields,” he answered. “We can’t talk of that, but it holds the secrets which will reorganize the life of the world.”

“You have discovered much about it,” I said, smiling.

“Yes, he said, “and yet very little in comparison with the possibilities that appear.”

“How many inventions have you patented?”

“Only six hundred,” he answered, “but I have made application for some three hundred more.”

“And do you expect to retire soon, after all this?”

“I hope not,” he said, almost pathetically. “I hope I will be able to work right on to the close. I shouldn’t care to loaf.”

Shouldn’t care to loaf! What a thought after fifty-two years of such magnificent achievement.

