time the inventor spent in acquiring knowledge that a college-trained man would know offhand.

Fifty thousand failures were recorded before his storage battery was successful. The phonograph worked when it was first tried, but the letters "S" and "C" would not reproduce without a hissing sound. For a whole year Edison spent part of each day repeating the word "specie" into the instrument and making changes until the difficulty was conquered.

He insisted that people ate and slept too much, expecting others to match his capacity for work. But some of the men who worked with him claimed that he got more sleep than he permitted them. There was no time for games, exercise or other recreation with Edison; a man's work would give him all the necessary exercise, he felt. Though he was a hard taskmaster, Edison's employees often stayed with him for years.

Quick of temper, he was likely as not to fire a workman on the spur of the moment for some minor error. If the workman were wise, however, he would return the next morning, stamp his time card and continue working--for years sometimes. Edison was often forgetful. One time he thought that the cigars were disappearing too rapidly from a box which he always kept handy. He arranged with a friend to have a box of special cigars made containing rubber, hair and other disagreeable tasting substances. A week or so later the friend asked him what effect the trick cigars had had. Edison was surprised, and then with embarrassment confessed that unthinkingly he had smoked them all himself.

By 1900 Edison's name was associated with big business as well as science. The West Orange plant had expanded, and trains and steamships were carrying his products all over the world. During the nineties he had invented the motion picture machine and had built a studio at West Orange. His son, Charles Edison, the Secretary of the Navy, was one of his first actors. (See Bulletin No.1, 1939-40 Series.)

The amazing quality of Edison was the great variety as well as the number of his inventions. Shortly after the motion picture machine, he became interested in X-ray and used the principle for his fluoroscope, which makes it possible to watch the internal organs of the body at work. At about the same time he built a huge plant in Sussex County where the magnetic New Jersey iron was extracted from the ore by means of an electro-magnetic device which he invented. The village which grew up about the plant was called Edison. When huge western iron deposits were found which could be mined much more cheaply, Edison had his giant rock crushers moved to New Village where he began the manufacture of cement. By the use of automatic machinery, he produced a finer product and one which did not vary chemically. The Edison plant could produce more than five-and-one-half times as much as its competitors'.

Even Edison's fine physique could not stand the strain to which he put it. He began to tire more easily, and his vision dimmed. In 1905 he underwent a mastoid operation, but he gave no peace to the nurses and doctors who tried to keep him from his experiments.

The laboratory was his life; when in the midst of an experiment he would leave it on no account. Once during the experimental work on his storage battery Edison received an invitation to accept an honorary degree at an English university. Though he appreciated the honor, he stayed at home to finish his work. Honors and medals came to him from foreign countries and scientific societies all over the world.

During the World War, though he was working 15 to 18 hours a day in his laboratory, he accepted the invitation of Secretary of the Navy Josephus Daniels to become chairman of the Naval Consulting Board of the United States. His