Frederick W. Taylor

Frederick Winslow Taylor, the father of scientific management, was born on March 20, 1865, into an upper class liberal Philadelphia family. His father, a Princeton graduate and lawyer, made enough money from mortgages and did not have to keep a regular job. His mother was a spirited abolitionist and feminist who was said to have run an underground railroad station for runaway slaves. Both parents were Quakers and believed in high thinking and plain living. Parental authority was not questioned and children were seen and not heard in the Taylor family. At an early age Taylor learned self-control and his Quaker upbringing helped him to avoid conflicts with his peers and to resolve disagreements among them.

Taylor was a compulsive adolescent and was always counting and measuring things to figure a better way of doing something. At age twelve, he created a harness used to keep from sleeping on his back, hoping to avoid the nightmares he was having.

At age twenty-five, Taylor earned an engineering degree at the Stevens Institute of Technology in New Jersey.

Upon graduation Frederick chose to work as a machinist and pattern maker at the Enterprise Hydraulic Works in Philadelphia (Weisford 1987).

After his apprenticeship he moved on to the Midvale Steel Company as a common laborer. He started as shop clerk and within six years he advanced to research director, then chief engineer. While working there he introduced piece work in the factory. His goal was to find the most efficient way to perform specific tasks. He closely watched how work was done and would then measure the quantity produced (Kanigel 44).

He was a perfectionist, always looking for the "one best way". He hated "soldiering", a term for workers just doing what the informal workgroup had established as a fair days work (no rate-busting). By contrast, "Speedy" Taylor wanted everybody to be a "rate-buster", and he thought unions were unnecessary.

Taylor's work was taking place in a time period when there was much industrial change. National industries grew out of local trades -- steel, glass, textiles, and shoes and what were small factories became large plants. Owners became wealthier with mass production, and workers received little for their efforts. Taylor sought to get past the futile incentive bonuses that management thought would remedy the problems. He believed that incentive wages were no solution unless they were combined with efficient tasks that were carefully planned and easily learned. He proposed that management work cooperatively in a supportive role (Freedman 26-38).

Taylor believed that the secret of productivity was finding the right challenge for each person, then paying him well for increased output. At Midvale, he used time studies to set daily production quotas. Incentives would be paid to those reaching their daily goal.

Those who didn't reach their goal would get the differential rate, a much lower pay. Taylor doubled productivity using time study, systematic controls and tools, functional foremanship, and his new wage scheme. He paid the person not the job.

At age thirty-seven, Frederick became a consulting engineer. Unfortunately, he did not understand the resistance of the people most threatened by his system -- supervisors and middle managers. He focused on cost cutting methods when a problem called for new customers and products. At the Simonds Roller Bearing Company he increased productivity while improving speed and accuracy. Taylor's critics said he was too harsh because his innovative plan caused people to lose their jobs, referring to his replacing of 120 workers with only 35 at Simonds.

In practice, Taylor "took a harsh, often ruthless approach" to chopping heads rather than saving jobs. He believed that unions wouldn't be necessary if workers were paid their individual worth (Weisbord 1987).

As a consultant, Frederick's most important client was Bethlehem Iron Company, later known as Bethlehem Steel Company. In 1901, he made Bethlehem "the world's most modern factory and a prototype for manufacturing by installing production planning, differential piece rates, and functional foremanship (Nelson 1980).

Among Taylor's other contributions were a real time analysis of daily output and costs, a modern cost accounting system, reduced worker's from 500 to 140, doubled stamping mill production, and lowered cost per ton of materials handled by one half. He successfully implemented cost saving techniques even though he added clerks, teachers, time-study engineers, supervision and staffing support positions. After disputes with new management at Bethlehem, Taylor was eventually fired in May of 1901.

Taylor did not suffer financially from losing his job, but the event did hurt his self-esteem. After Bethlehem, Frederick never worked for money again.

Much of his famous book, ***"The Principles of Scientific Management"***, was written from transcripts of talks Taylor gave at his estate years after he stopped working. He was the first person in history to make a systematic attempt to improve both output and work life in factories" (Weisbord 1987).

While on a speaking tour in the Midwest, in 1915, he contracted influenza. He was admitted to a hospital in Philadelphia and celebrated his fifty-ninth birthday there. He died the next day.

References

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