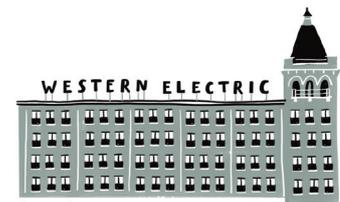


As part of the CQI's centenary celebrations, *Quality World* will be looking at the past 100 years, focusing on each decade, to provide readers with an example of a major development that influenced the quality profession.



1930s

A TIME OF INNOVATION & TECHNOLOGICAL ADVANCEMENTS



Between 1924 to 1932, Australian-born sociologist Elton Mayo conducted a series of experiments at Hawthorne Works, a Western Electric factory in Chicago, USA. Western Electric had commissioned a study to discover whether the level of light in their building affected employee productivity. Two groups of workers were used as test subjects.

rest breaks. Where changes were made, the productivity improved. The study also found that employee performance improved when the lighting was dimmed. While this was unexpected, Mayo concluded that this was the result of seeing someone concerned about the workplace and being under observation.

Lighting for the first group was improved substantially while lighting stayed the same for the second group. The study found that the productivity of the group of workers with better lighting had increased dramatically.

Mayo also conducted a series of interviews with employees in which they were invited to express their views on their working experience. Mayo concluded that supervisors needed training in understanding the personal problems of workers, and also in listening and interviewing techniques. When analysing the experiments in 1955, researcher Henry A. Landsberger coined the term 'the Hawthorne effect', after the name of the factory.

During the Great Depression, workers' conditions also changed in other ways: reducing working hours and introducing



ADVANCES in MANUFACTURING, PRODUCTION & PROCESS

Many of the sectors in which many quality professionals work today were being shaped in the 1930s.

TECHNOLOGY



HEALTHCARE

The first ever blood bank opened in 1937 at the Cook County Hospital in Chicago. The blood

bank was founded by Dr Bernard Fantus, an inventive Cook County Hospital physician. It helped to facilitate 1,354 blood transfusions in its first year. The model for this blood bank was adopted around the country and throughout the world.

Physicist Sir Robert Alexander Watson-Watt discovered it would be possible to detect aircraft by means of radio waves. Radar was introduced to warfare by the British and tipped the scales in the UK's favour at the Battle Britain, during World War II.



AGRICULTURE

Technological advances boosted agricultural productivity. For example, tractors were built with diesel engines, and advances in steel manufacturing meant there was stronger and cheaper steel available for agricultural equipment.



CLOTHING

Wallace H. Carothers' research in the 1930s at DuPont confirmed the existence of molecules of extremely high molecular weight. This led to the development of nylon, the first totally synthetic fibre used in consumer products. A nylon patent was issued in 1938 and DuPont opened its nylon plant in Seaford, Delaware, USA. Nearly 800,000 pairs of nylon stockings were sold the first day they were introduced in 1940.

