

Famous canadian entrepreneurs



**ASSIGN
BUSTER**

James Hillier, one of the entrepreneurs of the electron microscope, was born on August 22nd, 1915 in Brantford, Ontario. He attended the University of Toronto, where he received a PhD in 1941. After graduating, Hillier spent most of his career at the Radio Corporation of America (or RCA), discovering the principle of stigmator, which is used to correct astigmatism in a microanalyser, while being the first person to picture tobacco mosaic viruses and an ultra-thin section of a single bacterium.

He often discussed the importance of needing to relate technology to the economy, mainly because he thought that technology played a large part in discovering and seeing today's major social problems. Although he is known for being a famous Canadian entrepreneur, he often talked about his dislike for his business/entrepreneurial plans and research plans as a scientist overlapping and getting in the way of one another. James Hillier died on January 15th, 2007 in Princeton, NJ.

Albert Prebus was the second scientist involved in the re-creation and entrepreneurial making of the electron microscope in North America continent in the year 1938. He attended the University of Toronto with his friend and partner, James Hillier, as part of the Physics Department. Albert Prebus died on December 16th, 1997. James Hillier and Albert Prebus spent their most of their time in the University of Toronto building a prototype of the electron microscope, which would be used for later versions of it in the future.

While James Hillier was working at the Radio Corporation of America, he also developed and perfected the device using the previous prototype. Both

Hillier and Prebus manufactured the parts of the device themselves, and, naming the experiment and development “ strictly a string and beeswax operation”, it took the two scientists months to complete the microscope. Since the microscope had been improved, it now has a much higher magnification of 7000 times, compared to the one developed and first invented by a German physicist that only has a maximum magnification of 2000 times.

The electron microscope is also capable of much higher magnifications, having greater resolving power than a light microscope that allows it to see smaller objects in finer detail. Additionally, it is very large and is very expensive equipment that stands alone in a small design. It requires a highly trained professional to operate one. It was made to also benefit society; with the higher magnification microscope that was created by James Hillier and Albert Prebus, it helped people view bacteria; germs, diseases, and insects.

This was beneficial because it was used to experiment on types of bacteria that could help cure human diseases and natural phenomena with the human body. James Hillier and Albert Prebus had many entrepreneurial characteristics that caused them to succeed in their lifetime. The first is that they were very willing and motivated to research and find background information about the microscope that had already been invented. Since they did this, they were able to know how to improve the already existing device.

Secondly, they were flexible in managing time and money; they knew what equipments to buy and how much time to spend on their project. They were

also very imaginative; they saw their electron microscope succeeding in life and did not let go of their dream to complete and help society with it. Lastly, James Hillier and Albert Prebus were very perceptive; they knew that building an electron microscope would be very challenging and difficult, but still rose to their challenge and has created a device that helps humans proceed to investigate on insects, bacteria and to cure common or rare diseases on a regular basis.

Hence, James Hillier and Albert Prebus were very hardworking, imaginative individuals who rose to a challenge to produce an electron microscope that was 5000 times more magnified than the first original microscope that was developed by German physicist which was magnified up to 2000 times. Their invention has helped today's society cure many diseases and experiment on insects and bacteria as the 7000 times magnified microscope has been invented.