

There is in this story an illustration of the nature and unpredictability of fundamental research, i.e., looking for one thing (butadiene) - finding the solution of a different and acute problem.

The moral is clear: (1) Without fundamental, unfocused research there can be no accumulation of scientific capital, (2) but also, without a trained corps of applied scientists to take advantage of fundamental research, there will be no national dividends. (3) Without national understanding, neither of these will be provided.

But to get back to the main point of my story. At the end of War I what happened? In Canada the doors of the acetone plant were closed.

In other countries, notably the United States, the plants were not dismantled but became the nucleus of a great industrial development. The surplus butyl alcohol together with war surplus nitrocellulose became the raw materials of the nitrocellulose lacquer industry based on solvents and cellulose (another component of cordite).

Canada, the country to whom the 20th century was to belong was not scientifically ready in 1918.

Now a flash to 1940, another war and another critical strategic shortage - rubber. This time one of the key components of artificial rubber was the same butadiene that Weitzmann was looking for in 1914 when he discovered a new method of making acetone. (Incidentally Weitzmann might have developed artificial rubber twenty years before the Germans had he not been diverted from his research).

What did Canada do? Again in association with her allies, she built and put into operation with amazing speed and efficiency a most intricate artificial rubber plant based on scientific techniques that we formerly thought were practical only in research laboratories.

This achievement was one of the finest in an exceptionally fine record made by the old Department of Munitions and Supply. But that is not the main point of my story.

The significant thing, however, is that after World War II this factory was not dismantled as was the acetone plant in 1918. The operation known as "Polymer" was kept going and today is one of the vital components of a young, rapidly growing and vital chemical industry - so essential to any country. - Why this different procedure in 1945?

I know that you will all say we had a "knowing Howe" in 1945 and to that I subscribe wholeheartedly. Just as I believe that the peacetime consolidation of our scientific advances made during the war is the important fact, so I believe that the contributions of Mr. Howe in connection with the industrial development of Canada - his understanding, his vision, his drive - after 1945 will be given precedence, by future historians, even over his spectacular and Herculean war efforts.