

greatly expanding the investigation to pilot plant scale, at an estimated cost of at least \$25,000 per annum. The council did not consider that the process was sufficiently promising, in competition with existing established processes to justify this expansion at public cost...

(e) At the close of 1940 it did not appear probable that the Pidgeon process would be used commercially for the production of metallic magnesium, even for war purposes, as there was no certainty that this process could operate commercially, or would produce metal at a cost that would compete with established processes. The associate committee on magnesium of the national research council, which includes members of the staff of the Departments of National Defence and Mines and Resources, and the research council, about this time officially recorded its view that if the dominion government desired to establish a commercial magnesium plant immediately, one of the established existing processes be used, rather than a plant based on the experimental work of the council up to that date. That was the situation at the end of 1940.

In January, 1941, Doctor Pidgeon showed Mr. W. E. Segsworth a four-inch retort which was in successful operation in his laboratory, and on the following day Mr. Segsworth and Mr. R. J. Jowsey called on the acting president of the national research council and discussed possible business arrangements to finance a pilot plant for the production of magnesium by what is now known as the Pidgeon process. As a result, an agreement between the council and Dominion Magnesium Limited was signed in April, 1941.

This agreement provides that the company pay not only the entire cost of the research carried on thereunder, including the salaries and expenses of the staff employed thereon, the cost of equipment and supplies required in connection therewith, and the sum of \$4,000 per annum in respect of overhead, but also an additional sum of \$30,000. The total expenditures of the council on the investigation of this process prior to the agreement were \$23,165.66. In addition, the company had to expend each year on research work considerably more than the \$25,000 estimated by the council as the minimum amount required to expand the investigation to pilot plant scale.

Following investigations carried out at the expense of the company under the above agreement, the company established a plant for the manufacture of magnesium by the Pidgeon process near Renfrew, Ontario, but before this plant was ready for commercial

production, it was taken over by the dominion government under arrangements made by the Department of Munitions and Supply.

It will be seen from the foregoing that Dominion Magnesium Limited has invested considerable money and has taken considerable risk in developing the Pidgeon process for the manufacture of metallic magnesium, and that during the war period it made no profit on its investment in this process. In addition, it still remains to be proven whether in the post-war period this process can successfully compete with other established processes for the production of magnesium.

Reference has also been made to the plan of the council to establish a corporation to patent discoveries of the council, and to exploit those patents. Every country in the world follows a similar plan in connection with its governmental research activities. It is the practice of all governments to own patents discovered by scientists in its employ, and it is the practice of all governments to make these available to the public either by lease or by outright sale.

In my earlier remarks, I made reference to the corporation that attends to these duties in the United States. To handle duties of that type by means of a corporation is in the public interest, in that its transactions are readily available; the manner in which it handles patents and the proceeds derived from such patents can be ascertained without difficulty. The purpose for which the proceeds are used can also be readily ascertained.

All those associated with the national research council believe that patent work should be handled by a separate corporation under direction of the council; and that is the purpose of the bill.

In the matter of crown companies, I do not know that anything further need be said, except to point out that the national research council can perform no act through the corporation that it cannot perform directly, if it desires to take appropriate action. The national research council cannot create a corporation which will have any power in excess of that held by the council itself. The establishment of a corporation will be simply for the purpose of enabling the council to carry out its duties in a way that is considered more efficient than the method of direct operation. I do not think hon. members need have any concern about the authority being given by this bill to the national research council to establish corporations.

The matter of employment was referred to during the discussion of the bill setting out the duties and privileges of crown corporations. A corporation set up under this bill