

## APPENDIX No. 5

*By the Chairman:*

Q. I would like you to say something to the committee in regard to the production of nickel, either in the form of an alloy of nickel and iron—what we might call a nickel billet, or nickel pig or the refining of nickel in Canada. Now, has your department gone into that, and what is the extent of your information on the subject?—A. There is no question that both nickel pig and refined nickel could be produced in Canada. The process that is now used for the refining of nickel by the Orford Copper Company, which refines the Canadian Copper Company's matte, is, I understand, open to be used by any one, as it is not now been patented in Ontario. The question resolves itself entirely, in my opinion, into one of economics. Is it commercially feasible and profitable? It is contended by those who are now interested in producing nickel that it is not, and I am not prepared to say whether that contention is right or wrong. There is a duty of six cents a pound on refined nickel going into the United States, which would operate against the producer of nickel in this country, because the American market would be the largest for the disposal of his nickel.

Q. That would depend on whether the United States has to get our nickel and cannot get it as cheaply as elsewhere. The natural consequence of producing refined nickel in Canada would be the removal of that duty. Would you not think so?—A. If the United States would remove the duty, that difficulty of course would be out of the way.

Q. It would disappear?—A. It would disappear. But the policy of the United States government appears to be a fixed policy of protection, and no one can estimate the probability of the removal of that duty.

Q. It is a fact that no duty is put on pulp wood going into the United States or on other commodities which that country requires; they put them on the free list in many cases?—A. Yes.

Q. In the case of the nickel matte produced at Sudbury and shipped to New York state for treatment, coke and coal is the main fuel for treating the product under the Orford process?—A. They have to have fuel, of course, to perform their operations.

Q. Whatever fuel they use is coal in some form?—A. Coal or coke, I suppose.

Q. Now, to treat the matte in Canada as they treat it would cost more money, would it not?—A. I think it would. It would be farther away from the source of supply. The coke or coal would have to be brought a longer distance, and would naturally cost more money.

Q. Are you aware that that is one of the principal reasons put forward by the producers of nickel matte in Canada, that the cost of production here renders it impracticable?—A. I believe that is one objection.

Q. The increased cost of other materials that are necessary?—A. Yes, the cost of chemicals used in the refining process.

Q. That brings me to this: Assuming that electric power is more desirable in the treatment of nickel for the production either of refined nickel, nickel matte, or nickel billet for structural purposes which might be rolled into shapes, and could be got in Canada cheaper than it could in the state of New Jersey where this matte is now treated, to what extent would that be an off-set against the extra cost of fuel?—A. Well, if electric power could be substituted for fuel, I think there is little doubt that the former could be produced more cheaply in the northern districts of Ontario than it could in many parts of the United States.

Q. To what extent have you information in regard to iron deposits in Ontario?—A. There is a very large extent of iron formation in Ontario—I think an unusually large extent. The bodies of workable ore that have been found are not as numerous as we would like. That may be due, and perhaps is due, in considerable degree to the fact that the iron formations have not been thoroughly prospected. It is a diffi-