

In Canada there are fairly complete statistics of fisheries, forestry, and internal trade and transport, in regard to which New Zealand is woefully deficient; but, generally speaking, in most other branches New Zealand statistics are quite up to the Canadian standard, and even a little in advance in some fields.

A feature of the Canadian Bureau was the mechanical branch, organized on the lines of the similar branch of the United States Census Bureau. The branch has a comprehensive plant, quite a number of machines of all kinds—adding, computing, sorting, tabulating, &c.—being employed. The machines in the branch were also made available for work of other Government Departments, and while I was there they were engaged on work for the Income-tax Department.

The census of Canada is taken on the *de jure* system, following the United States in this respect, while in New Zealand the census is taken on the *de facto* system, as in the United Kingdom and all other British countries.

Trade Statistics.—The trade statistics of Canada are now compiled in and issued from the Bureau of Statistics. The trade statistics are presented in three reports: No. 1 gives the general statement of trade for the year; No. 2 gives in detail the trade of Canada with each other country; while No. 3 gives a *résumé* of the trade statistics of other countries. The last is prepared largely for the use of Canadian producers and exporters; it appealed to me as deserving of consideration for imitation by New Zealand. The Canadian Bureau, apart from their *Statistical Monthly* and the Canada Year-book, issue their reports on the respective branches of statistics dealt with in separate volumes, some of which, such as mining and the like, are marked as compiled in collaboration with the administrative department concerned. Collaboration and co-operation of this kind is both advantageous and economical to the country, and there is scope for improved work along these lines in New Zealand.

In the office of the Superintendent of Insurance at Ottawa I found that the most complete details as to the operations and standing of the various insurance companies were obtained, tabulated, and published, showing particulars for individual concerns, considerably more extensive than the statistics of fire insurance in New Zealand initiated just before I left. After having seen the work being done in other parts of the world by the tabulating-machines referred to I am quite satisfied now that it would be easy to organize a system whereby the most detailed analysis of the fire-insurance business done in New Zealand could be compiled and produced. Given the co-operation of the various fire offices, an experience could be built up in a few years which would be of the greatest value. It is a matter I have noted for consideration when the Statistical Office is equipped with a tabulating-machine plant.

A suggestion of some importance in connection with census work was made to me here—namely, that the census schedule should be used to ascertain the number of people in the Dominion who are covered by life insurance. I think this is a social factor of the greatest importance, and I recommend that if possible room be found for an inquiry on this point on the next census schedule.

The vital statistics of Canada are at present in course of reorganization. They are primarily dealt with in the respective provincial offices, who report to the Bureau of Statistics at Ottawa. These statistics are not yet uniform throughout the provinces, some provinces being more advanced than others, &c. In order to see what was being done locally in regard to these, I returned from Ottawa to New York via Toronto, where I saw through the Registrar-General's Department there. I am satisfied that the New Zealand system of registration of births, deaths, and marriages is more complete and efficient, and that more advanced work is being done in this branch of statistics in New Zealand, than elsewhere within the Empire.

From New York I took train through to San Francisco via Los Angeles. The "Marama," on which my passage was booked prior to leaving London, was scheduled to leave on the 3rd July, but did not do so until Tuesday, the 13th July, at 11 a.m.

Taking a general survey of the various discussions, inquiries, investigations, &c., of my tour, two questions impress me as of outstanding importance, and deserving of special consideration, namely:—

- (1.) The centralization of a nation's official statistics; and
- (2.) The application of mechanical appliances to statistical analysis and accounting work.

A full discussion of each is therefore now submitted:—

(1.) CENTRALIZATION OF A NATION'S OFFICIAL STATISTICS.

During my tour I endeavoured to ascertain the views held as to the position of statistics generally in each country, in addition to investigating the methods of collection and tabulation in use in connection with the respective classes of statistics, and the following remarks summarize the results of my observation in this connection. I found the experience everywhere was that for some years past greater attention to statistics had been manifested, and that greater demands were being made for more information and statistics; that the war very greatly accentuated this demand, and emphasized the need for accuracy and completeness in the statistics required. The necessity enforced by conditions arising out of the war of attempting to control and regulate supply and consumption showed how essential it was to have complete and accurate statistics as to all sources of supply and as to the nation's requirements for consumption. Where these were non-existent special steps had to be taken to obtain them, and, where the statistics were defective, to verify and correct them. The effect of all this was to direct the attention of all as never before to the value and importance of statistics in the study and direction of the life of each nation. The general drift of things could not be ascertained, studied, and watched without complete and accurate statistics. Consideration of the problem and of the reason why the war conditions should find the statistics in all countries deficient in so many respects has gradually forced the conclusion that the method hitherto generally or partially followed in regard to statistics, of allowing them to be dealt with as the by-products of administrative departments, was fundamentally wrong; that, while statistics were the by-products in many cases of administrative departments, there was also a distinct field for statistics apart from administration where