

Concurrently with the acquisition of motive power and equipment, there of course had to proceed the restoration of the roadbed and the track structure to the standard of a first class railway. In the period 1950 to the end of 1957, we have installed 5,591 miles of new rail. This represents about 23% of our first main track mileage. The total cost of such installation has amounted to some \$167 millions.

There has also been a marked increase in the efficiency of our signalling and yard facilities, through an expenditure totalling \$50 millions. In signalling the C.N.R. can fairly claim to be one of the first users of Centralized Traffic Control, (or C.T.C. as it is known) a modern system which makes it possible to handle the heavier volumes of traffic more economically, faster, and with an added margin of safety compared with conventional methods. It is nevertheless true that while plans are well advanced, actual installation has been slower than I like to see because of a scarcity of the highly technical skills required.

Our terminal problems have been enormously complicated by the explosive growth of industrial development that has characterized the post war period. In almost every large city there are extreme problems of congestion and delays which simply cannot be tolerated by present day standards. Electronic hump yards are costly but essential and we have \$71 millions committed already in Moncton, Montreal and Winnipeg. The situation at Toronto remains unsettled and is currently the subject of an intensive study. The forthright co-operation of all planning authorities is being invited in an effort to reach sensible solutions. We already know, however, that it will be very very costly to cure the built-in congestion in this area.

Even in the field of our bookkeeping, accounting, and statistical records, a large scale revolution in methods and procedures is taking place with the development of the electronic data processing devices which are becoming another "must" in modern railroading. One part of our program involves the operation of a computer centre in Montreal. At present this centre is producing pay cheques twice a month for the 70,000 Canadian National employees located between the Atlantic Coast and the Lakehead. The computer performs the complicated calculations involved in railway pay and produces printed payrolls and pay cheques for fifteen-hundred men per hour.

During the next two or three years, we expect to derive advantages from the application of integrated data processing to a wide variety of railway activities. For example, we own approximately 121,000 freight cars which cost some \$620 millions. These cars move two and a half million times each month and the problem of recording these movements and of