

that these should be deducted. While objecting to the deductions proposed, he stated that station services, station supplies and some allowance for maintenance of buildings would take off 6.07c, leaving 33.48c, with a proper charge for a margin on common stock as included, or 32.18c if this is not included.

The Quebec Central Ry., in a written submission, stated it had an actual cost of 30.76c a car-mile, and overhead charges of 10.86c, giving a total of 41.44c. The Toronto, Hamilton & Buffalo Ry. said it had direct costs of 47.28c a car-mile. The services on the T., H & B. are in baggage cars entirely, and while its figures are referred to, it does not appear that they can be taken as characteristic.

Reference has already been made to the pending investigation into mail-car payment in the U.S. In a written submission, prior to the hearing, various railways represented that the payments they were then receiving were inadequate, and that in fact other services had to bear, under existing conditions, part of the cost of carrying the mails. Comparisons were made with the rates which were paid in the U.S., and it was pointed out that the Canadian rates were much lower. It does not appear that a finding based on existing U.S. rates can be made. It was stated by counsel for the P. O. Department, as by the Comptroller of Railway Mail Service, that the services performed by railways in Canada and in the United States are not on all fours; and in some particulars this was admitted by counsel for the railways, certain off line delivery service performed by the railways being referred to in this connection. Putting the foregoing figures in summary form the result is—

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| Passenger car-mile cost | 33.10c |
| Deduct lesser charges of maintenance, train supplies and expenses | 2.52c |
| Mail car-mile cost | 30.58c |
| Ratio added for taxes, fixed charges, dividends and margin of 2% on common stock .. | 8.93c |
| | 39.51c |
| If margin of 2% on common stock de- ducted .. | 1.26c |
| | 38.25c |
| Deducting station services, station supplies and some allowance for maintenance of building (such deduction object- ed to by railway) | 6.07c |
| | 32.18c |

The Grand Trunk figures for the year ended June, 1918, before the increase under the McAdoo award became effective, showed a computed car-mile cost of 25.48c, and adding to this 3c for overhead charges the result would be 28.48c a car-mile.

The criticism directed against the method of computation used by Mr. Moule, both by counsel for the P. O. Department and by his statistical expert, J. L. Payne, Comptroller of Railway Statistics, was that the element of individual judgment bulked largely in making the allocation. It cannot be said that exception was taken to this, as a principle, by the railways, the differences were as to details. It was frankly admitted by counsel for the P. O. Department that there were many costs common both to passenger and to mail service. It was contended for the P. O. Department that while the mail-car operation was mixed in with passenger train operation, there were certain costs attributable to passenger car operation which did not properly enter into the mail-car service; and it was further contended that the proper way of approaching the matter was to deal with it as if the mail

service were handled entirely on mail trains, to ascertain the costs properly applicable thereto, and then make the necessary computations on the car-mile basis. As was pointed out by Mr. Payne, when cross-examined, there is not sufficient business for separate mail trains and, therefore, computations as to costs based on mail-train service proceed from a purely theoretical assumption. Further, he expressed the opinion that operation on a mail train basis would be both unnecessary and impracticable. While in view of what has been stated it does not seem that a computation in regard to a method of service that is not used can be helpful in arriving at a result of value, it may be pointed out that the items of cost which would be deducted in computing on a mail-train basis amount would mean a reduction from 33.10c for passenger mile cost to 24.29c for computed mail-car mile cost on a train movement basis.

Counsel for the P. O. Department had before him, before the hearing, a C.P.R. statement for the year ended June 30, 1918. While the statement for the period Aug. 1, 1918, to Feb. 1, 1919, differed as to totals, this does not change the situation from the standpoint of criticism of the principle involved. The mail-car mile cost as computed for the year ended June, 1918, was 24.83c. For the period Aug., 1918, to Feb. 1, 1919, it was 30.58c, or an increase of 23%. Against this must be remembered the large increases in wage and material costs.

The evidence given on behalf of the P. O. Department by the Comptroller of Railway Statistics, emphasized the element of judgment as a factor of importance in the allocation of costs. From the total cost of \$36,617,000, which was allocated to passenger business by the C.P.R., including under this mail-car service for the year ended June, 1918, Mr. Payne made computations to the effect that there should be deductions amounting to \$6,803,719. He considered that these should be deducted, before making the various divisions intended, to arrive at mail-car cost. The net effect is that he claimed there should be a deduction of 18.5%.

In connection with the original computations whereby a 16c figure per car-mile was arrived at, it is suggested that a basis of 11½c was taken, and that approximately 40% was added to this, to take care of general charges and an assumed element of profit. That is to say, there was an operating ratio of 60% provided for. Mr. Payne, in his evidence, considered that in order to provide for overhead, etc., an operating ratio of 75% was reasonable. For the years 1914-1917, inclusive, the operating ratio for Canadian railways averaged 72.1%. If Mr. Payne's deductions, averaging 18.5%, are made, the C.P.R.'s cost figure for mail-car service is reduced to 24.92c. For the theoretical mail-train service, the computed cost figure is 24.29c a car mile. At an operating ratio of 75%, the first computation would give a reasonable charge of 33.22c a car mile. On the same basis, the second computation which shows the extreme of what is claimed, but which for reasons set out is not a practical basis, the 75% ratio would give a reasonable charge of 32.38c a car mile. If a 60% ratio is taken, the figures would be 41.53c and 40.48c respectively. On the average of 1914-1917, the resultant figures would be 34.56c and 33.68c respectively.

Giving the consideration to the averages involved, and the element of judgment concerned in dealing with the ques-

tion as to the proper participation of the mail service in general costs, it would appear not unreasonable that the rate accepted by this board for the kindred express service, in the general express judgment should be adopted, that is, a rate of 34.7c for a full mail-car mile. It would appear also not unreasonable that the charges for the other services set out in the order in council as contained in the reference to the board, should be increased in each case by the same percentage as the 34.7c rate represents over the 15c rate.

On August 29, 1919, Commissioner McLean made the following addition to his report:—Since the draft report was prepared, the matter has been before the other members of the board, who, in agreeing, are of the opinion that the 34.7c rate should be the maximum rate, and subject to all bonus or statutory deductions.

The report is still before the government and up to the time of writing (May 19) no intimation had been given of what action will be taken, though the Postmaster General, as one excuse for raising newspaper postage, said the railways will have to be paid much higher compensation than at present.

Electrification on Paulista Railway in Brazil.

The Paulista Ry. has given a contract to the International General Electric Co. for the electrification of its line between Jundiahy and Campinas, Brazil, a distance of 45 kilometers, or about 28 miles. As the road is of double track construction, the total mileage, including switches and extra track, is about 76 miles. The project anticipates further extensions, amounting to about 100 additional miles, which may eventually bring the total electrification up to 128 miles, extending between Jundiahy and San Carlos.

The equipment to be supplied by the contractors will consist of 12 locomotives, 8 freight and 4 passenger, material for the transmission line and sub-station, and a 3,000 volt overhead, of the twin-catenary type construction. The locomotives will be of the geared type, 3,000 volt direct current. The freight locomotives will weigh 100 tons each, all weight on driving axles, and the passenger locomotives 120 tons, equipped with 2 axle guiding trucks at each end. They will be built at the General Electric Co.'s works at Erie, Pa. All of them will be equipped with regenerative braking apparatus. The design of the new equipment will parallel closely that of the Chicago, Milwaukee & St. Paul Ry. electrification, and the locomotives will be almost the duplicates of those used on the Butte, Anaconda & Pacific Ry., except for slightly increased weight and the additional of regenerative braking. Power for the operation of the lines will be supplied by the Sao Paulo Light & Power Co. at 88,000 volts, 60 cycles.

The contract amounts to nearly \$2,000,000, and it is expected that it will be completed by July, 1921.

Sleeping and Parlor Car Rates.—The increases in sleeping and parlor car rates which went into force on May 1, between points in the United States, and on international traffic between Canada and the U.S., full particulars of which were given in Canadian Railway and Marine World for May, pg. 249, also went into force between points in Canada on May 15.