

service observers in Montreal are much more particular than they are in Toronto, and count operating faults where they are passed over without notice by the Toronto observers. There is, however, the possibility of comparing the speed of answer in the two cities which I think is a slightly fairer comparison than the comparison of the irregularities, although I feel that the results obtained on the speed of answering tests are far from accurate in either of the cities. I make this statement after having carefully observed the method by which these observations were made. In both cities the lines under test terminated as is the usual custom on lamps in a small monitor set in front of the test clerks. In not a single test that I saw made did the test clerk have the stop watch in her hand the instant that the lamp lighted, until the attention of the superintendent in each district was drawn to this feature on the part of the test clerk. For this reason I feel that the actual figures in the speed of answer test in each office should be increased by one-half to one second. As this inaccurate method of timing was used in both cities, it will enable us to form some opinion of the speed of answer in the two cities. The following results are a summary of the speed of answer tests for the first six months of the year:—

| | Montreal. | Toronto. |
|------------------------|-----------|-----------|
| 2 seconds or less..... | 27.6 p.c. | 40.8 p.c. |
| 4 " "..... | 86.1 p.c. | 74.7 p.c. |
| 10 " "..... | 98.3 p.c. | 91.9 p.c. |
| Average answer..... | 3.45 s.c. | 3.83 sec. |

The average number of calls per 'A' operator during the busy hour for the first four months of the year were, for Montreal 174.5 and for Toronto, 287.6, showing that the Toronto operators were handling some 113 calls more during the busy hour than they were in Montreal. There is approximately 30 per cent trunking in Montreal and 20 per cent in Toronto.

I think this condition of affairs shows quite clearly in the table showing the speed of answer. On account of the larger number of calls falling in front of the operators in Toronto, there is a larger per cent answered in a short time, but on the other hand, there is a considerable percentage of the calls that have to wait over 10 seconds; in Toronto 9.1 p.c. of the calls wait over 10 seconds, while in Montreal 1.7 p.c. take over 10 seconds. From the results shown, it would appear that the service given in Toronto costs much less than it does in Montreal, but on the other hand, the service given in Toronto is poorer than the service given to subscribers in Montreal. It is fair, however, to say, that by increasing the cost of service in Toronto, by reducing the number of calls per operator in the busy hours, there is no doubt but what the service could be put on a plane equal to that of Montreal, without increasing the cost proportionately. This cheapening of the service, however, must not be attributed solely to the fact of having a 5-hour schedule in Toronto and an 8-hour in Montreal. There are several other factors entering into the question, the most important of which is the personal factor of the managers in the two cities.

Mr. Maw, the manager (inspector of service) in Toronto, is an extremely wide-awake man, who has among other qualities, the ability of interesting his operating force in their work and keeping them keyed up to their work while at the switchboard. On the other hand the manager (inspector of service) in Montreal, Mr. Anderson, is far from being as forcible a man as Mr. Maw. His object in handling his department seems to be to give as good service as it is possible to give his subscribers, rather regardless of cost. He considers it necessary, for instance, to have one supervisor for each seven operators; while in Toronto they have one supervisor for about 12 or 14 operators.

In talking over operating matters with Mr. Maw, his attitude is that all that can be expected from the telephone company is to give reasonably prompt service during all conditions, that subscribers should not necessarily expect as good service at times of extreme rush, as they receive during the ordinarily busy moments; that no great harm is done if the service falls off rapidly on certain days, due to storms or fire, and that in no other branch of public service do people expect to receive equally good service at

all times, citing for example, the condition of the street cars during the busy hours of morning and evening, the crowded condition of railroad trains during conventions, &c.

The view held by the Montreal manager, however, is diametrically opposed to this. He feels that there should be enough operators on hand at all times to give gilt-edged service to the subscribers regardless of certain rushes of business.

My personal feeling is that each of these managers has ridden his hobby distinctly too far. From observations made in Toronto during fairly busy times on the switchboard, I am forced to the conclusion that the service on that board on rush days of the year must be nothing short of wretched, whereas in Montreal, during the busy hours of the day it seemed as if the operators were not loaded to anything like their proper amount.

Regarding the question as to whether it is advisable to introduce the five-hour system in other offices than Toronto, and as to whether it would be advisable to change Toronto back into the eight-hour schedule, my feelings on these points are, that before this question can be finally solved, it would be necessary to have more accurate peg counts and service tests taken in the two cities, and that in equating the results of these tests it would be necessary to remove as far as possible the personal equation of the managers of the two cities. My own opinion is that if a manager of Maw's ability were placed in Montreal with as great an incentive as to show a reduction of the operating cost as Maw has had in his work in Toronto, that the cost of handling calls in Montreal could be very materially reduced, approximating, if not equalling the cost of service in Toronto.

(Signed) JAS. C. T. BALDWIN.

Views of Local Manager at Toronto.

In commenting upon these reports, Mr. Dunstan wrote on December 20th, 1906, as follows:—

BELL TELEPHONE COMPANY,
TORONTO, December 20, 1906.

Subject: Mr. Baldwin's Report.

The Bell Telephone Company,
JAS. A. BAYLIS, Esq.,
Electrical Engineer,
Montreal, P.Q.

DEAR SIR,—I am much obliged for yours of the 17th inst., inclosing copy of letter from Mr. Hayes and Mr. Baldwin's report on Toronto-Montreal service. I regret that it is as anticipated, inconclusive. It could not well be otherwise in view of the limited time which Mr. Baldwin had at his disposal for personal investigation. It would have been more satisfactory had he been able to make adequate tests of the service here and at Montreal from subscribers' stations as well as securing traffic records made under his direction and in accordance with a uniform standard here and at Montreal.

That the peg test records are unreliable is certain. I discussed this point with Mr. Maw before receipt of your letter, pointing out the discrepancy in operating errors, clearly showing that Montreal adopted a higher standard, while on the other hand I feel that the speed tests are unfair to Toronto, where personal observation shows quicker, if less certain operating.

Again, it is a mistake to judge the relative economy of the two systems by present traffic costs, assuming that those costs are largely resultant from the difference in the hour schedule. Practically the same variation existed before the 5-hour plan was adopted, showing that the comparative economy here results from other and probably a combination of causes, including general methods, closer and more intelligent supervision and a greater regard for economy. In other words, the result here is due more to the way in which the system is operated than to merits inherent in the system itself.