At Chicago a letter written by the engineer of the Los Angeles Company to the Automatic Electric Company was shown to me. It was dated 26th July, 1909. The following is an extract:-
"There are at present 11,000 manual telephones; 4,850 are main line, the balance, 6,150 , private branch exchanges, with stations and extension telephones. Approximately, 22,000 automatics; 19,000 are main lines, 3,000 are party and extensions. The actual expense of maintenance and operation for the 11,000 manual telephones for the month of June was 10 dollars 10 cents more than the actual expense for maintenance and operation of the 22,000 automatic telephones for the same month, and we find there is little variation from month to month. This shows a saving of about 50 per cent. in automatic equipment. Another very large item in favour of the automatic system lies in the fact that the automatic telephones are scattered over a very large area and are working out of ten different exchanges, while the manual telephones all work out of one exchange and are all located in a small area. It is safe to say that if all the automatic telephones were working out of one exchange and in as small an area as the manual telephones they could be maintained and operated at a considerably less cost. We are so well pleased with the service and the economy derived from the automatic system that we are getting ready to cut all our manual telephones except private branch exchanges over to automatic."

This cut-over has been made, and it was stated to me at Los Angeles that the result fully justified the change.

For the year ended the 31st December, 1910, the Automatic Company's revenue at Los Angeles (within the city) for about 41,000 telephones of all kinds of service was $£ 219,50813 \mathrm{~s}$., or about $£ 57 \mathrm{~s}$. per telephone. The expenses were as follows :-

$$
\mathrm{f} \text { s. } \mathrm{d}
$$

Operation and general
$53,058 \quad 0 \quad 0$

Taxesĩ .. .. .. .. .. ..

Charged to plant addition Balance

| 109,279 | 3 | 0 |
| ---: | ---: | ---: |
| 58,657 | 9 | 0 |
| 51,572 | 1 | 0 |

$£ 219,50813 \quad 0$
Depreciation is not included. If we omit the taxes the cost per telephone is about $£ 25$ s.
The Bell Company, operating manually, had about the same number of telephones. Their revenue within the city was $£ 232,366$ 1s., or about $£ 513 \mathrm{~s}$. 4 d. per telephone. The expenses were as follows :-

| Operation |  |  | .. |  | .. | . | $\stackrel{£}{106,623}$ | 8. | d. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maintenance |  |  |  | . |  |  | 47,595 | 14 | 0 |
| Taxes | $\cdots$ |  | $\cdots$ | $\ldots$ | . | $\cdots$ | 15,471 | 6 | 0 |
|  |  |  |  |  |  |  | 169,690 | 7 | 0 |
| Balance | - | . | $\cdots$ | . | . | . | 62,675 | 14 | 0 |

Depreciation is not included. If the taxes are omitted the cost per telephone is about $£ 313 \mathrm{~s} .6 \mathrm{~d}$ The operating-cost only of the manual is double that for automatics. Care has to be exercised in using these figures, and it would not be justifiable to deduce any more from them than that they support the general claim that automatic telephones can be operated at a considerably cheaper rate than manual.

The rates of the Home Telephone Company (the automatic) are :-

| Business- |  |  |  |  |  |  | s. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wall telephone |  |  | . | .. | .. |  | 0 |  |
| Portable telephone |  |  |  | $\cdots$ | . | 1 |  | 11 |
| Residence- |  |  |  |  |  |  |  |  |
| Wall telephone |  |  |  |  | $\cdots$ | 0 | 8 | 4 |
| Portable telephone |  |  |  |  |  | 0 | 9 |  |
| Two-party business- |  |  |  |  |  |  |  |  |
| Wall | . |  |  |  |  |  | 16 | 8 |
| Portable | . |  |  |  |  |  | 18 | 1 |
| Four-party business- |  |  |  |  |  |  |  |  |
| Wall . . |  |  |  |  | . |  | 14 | 7 |
| Portable |  |  |  |  |  |  | 16 | 8 |
| Business extensions |  |  |  |  |  | 0 | 4 | 2 |
| Hotel extensions |  |  |  |  | 1s. to | 0 | 2 | 1 |
| Switchboards-Up to 20 lines |  |  |  |  | (each) | 0 | 2 | 1 |
| 20 to 30 lines |  |  |  |  | (each) | 0 |  |  |
| 30 to 50 lines |  |  |  |  | (each) | 0 | 1 |  |
| 50 and over |  |  |  |  | (each) | 0 |  |  |

If the hotel is wired by the company actual cost is charged. If they supply a booth, the charge is 50 per cent. extra. Trunks are charged $£ 15$ s. per month for the first; all additional trunks£1 0s. 10d. per month. Each switchboard station is charged 4s. 2d. a month ; each station con

