

THE Telegraph and Telephone Journal.

Vol. XIII.

DECEMBER, 1926.

No. 141.

CONTENTS.

| | PAGE | | PAGE |
|--|------|---|------|
| TELEGRAPH AND TELEPHONE MEN AND WOMEN | 41 | CORRESPONDENCE | 51 |
| NOTES ON TELEGRAPH PRACTICE. BY G. T. ARCHIBALD | 42 | PROGRESS OF THE TELEPHONE SYSTEM | 52 |
| THE FIRST MEETING OF THE INTERNATIONAL CONSULTATIVE COMMITTEE OF TELEGRAPH COMMUNICATIONS | 43 | TELEGRAPHS AND TELEPHONES IN GERMANY | 52 |
| TELEGRAPHIC MEMORABILIA | 45 | COVENTRY'S NEW AUTOMATIC TELEPHONE SYSTEM | 53 |
| EDITORIALS:— | | MR. ALFRED MAGNALL | 54 |
| FARTHER AND FARTHER STILL | 48 | LIVERPOOL CIVIC WEEK EXHIBITION | 55 |
| SUGGESTIONS AND AWARDS | 48 | TELEPHONE NOTES | 55 |
| HIC ET UBIQUE | 49 | THE TELEPHONISTS' COLUMN—"TALK OF MANY THINGS" | 56 |
| THE NEW BROADCASTING ORGANISATION | 50 | THE GOVERNORS OF THE NEW B.B.C. | 57 |
| THE G.P.O. PLAYERS | 51 | LONDON TELEPHONE SERVICE NOTES | 58 |
| | | PERSONALIA | 58 |

Subscription: To the public, 5s. 0d. per annum, including postage. To the Staff, 3s., including free delivery to any Post, Telegraph, or Telephone Office. Single Copies: To the public, 4d. each, or post free 5d. To the Staff, 3d. each. Orders should be sent to the Managing Editor, TELEGRAPH AND TELEPHONE JOURNAL, G.P.O. North, London, E.C.1.

All correspondence relating to advertisements should be addressed to MESSRS. SELLS, LTD., 168, Fleet Street, London, E.C.4.

TELEGRAPH AND TELEPHONE MEN AND WOMEN.

XXXV.—MR. A. L. DE LATTRE.

MR. A. L. DE LATTRE, the senior Assistant Engineer-in-Chief of the Post Office, entered the service as a telegraphist at Birmingham in July, 1886, and, five years later, transferred to the office of the local Superintending Engineer as a Junior Clerk. In May, 1893, he was promoted to the office of the Engineer-in-Chief, and he has since remained at Headquarters with the exception of an interlude of about four years—1903 to 1907—at Leeds as Assistant Superintending Engineer.

Mr. De Lattre is pre-eminently the Trunk Line Engineer of the Post Office. If he was not concerned with the first beginnings of the Post Office trunk system—of the men who built the first trunk lines in the far-off days of over 40 years ago there are probably none left in the service—he was at least very much in the forefront at the re-birth of the system in the early '90's, when the trunk lines of the National Telephone Company were acquired by the Post Office. He did yeoman service then and he has continued to do so for 30 years, for it is largely owing to his energy, judgment, and technical knowledge that the trunk system is



the wide-spread and highly efficient organisation that it is to-day.

Mr. De Lattre, however, has not confined himself to trunk line development, even though that has been his chief care and joy. He had much to do with the Hanbury Committee of 1897, a Committee, perhaps, nearly forgotten now but responsible for the setting-up of a telephone system in London by the Post Office and for the Municipal telephone systems which have since disappeared, with the exception of that at Hull. And he was in the front line in connexion with the inventory and other proceedings preliminary to the acquisition of the National Telephone Company's system in 1912, and with the subsequent arbitration case, where his work evoked special mention from the Solicitor-General.

Despite the passage of years, Mr. De Lattre's energy shows no abatement, and his zest for the development of the telephone service on sound but economical lines remains undiminished. Upon problems of the chess-board he brings the same keen intuition and certainty of solution that characterise his dealings with the complexities of official duties.

NOTES ON TELEGRAPH PRACTICE.

By G. T. ARCHIBALD.

(Continued from page 25.)

XXII.—Concerning Phonograms and Telephone-Telegrams.

It is not uncommonly supposed that the treatment of telegrams by telephone dates from the transfer in 1912 of the National Telephone Company's undertaking to the State. Such, however, is not the case. The truth of the matter is that telegrams have been dealt with by telephone since 1884 as the result of the introduction of the old Post Office local telephone system. Extensive use was made of the facility, the telegrams being treated as private wire telegrams.

In 1896 the service was extended to subscribers to the National Telephone Company's system, and although the traffic grew steadily year by year, development was not seriously encouraged until 1912, when clerical and accounting work was reduced to a minimum. Nevertheless, the number of telegrams dealt with by telephone had assumed such proportions in 1910 that it became necessary for official convenience to give the traffic a distinctive title, and "Phonogram" was the name selected.

In order to prevent confusion it may, perhaps, be desirable to explain why some telegrams dealt with by telephone are called "phonograms" and others are described as "telephone-telegrams." The distinction is mainly an administrative distinction; there is no difference in the method of signalling, but there are variations in the non-operating details of the treatment of the two classes of traffic.

A phonogram is a telegram either received or dictated over a telephone subscriber's circuit; a telephone-telegram is a telegram dealt with by telephone between two postal telegraph offices; thus whilst a phonogram must be either a forwarded or received telegram, a telephone telegram may be a forwarded, a transmitted, or a received telegram.

What advantages does the phonogram service confer upon the public? It enables a telephone subscriber and the user of a call office to pass telegrams to a Post Office without leaving their offices or homes in the one case and without travelling a considerable distance to the nearest Post Office in the other, and it is provided that they may be connected to the nearest Post Office open for telegraph business when the local office is closed. It enables subscribers to the telephone service to receive by telephone, free of charge, telegrams which would take appreciably longer to deliver by hand, and it ensured delivery at night of telegrams which would otherwise be held over for delivery on the following morning, and it also enables telephone subscribers to have their telegrams addressed to their telephone number, e.g. :—Jones, Coventry 2514, instead of to the full address—e.g. Jones, 249, Higher Clapton Road, Coventry, a concession which results in a saving to the sender of a telegram.

The charge for phonograms is included in the subscriber's quarterly telephone account, he thus avoids the necessity for a cash transaction in each separate case.

A confirmatory copy of each delivered phonogram is posted to the addressee and special "received" forms are provided for the use of subscribers at their telephone positions.

The subscriber on gaining the attention of the local exchange asks for "Telegrams" and is immediately connected to the appropriate phonogram room. He is charged the usual local fee for each call but there is no limit to the number of telegrams he may dictate during a single call.

It is clear, therefore, that the phonogram service is a great convenience to the telephone subscriber and to the public who take advantage of call office facilities. What then are the advantages from the Post Office point of view?

An examination of traffic at a number of representative offices showed that about 55% of the phonograms dealt with were tendered by subscribers whose addresses were nearer to a sub-Post Office than to the office at which their phonograms were written down, and it is reasonable to suppose that practically the whole of these telegrams would have been handed in at the nearest sub-Post Office if the telephone service had not been available. It is less costly to accept a telegram over the counter than to accept it by telephone and later, to render an account and collect the charges through another department; the Post Office must, therefore, gain some compensating advantage if the phonogram service is to be maintained on an economical footing. Fortunately there is a very real financial gain to the Post Office, an advantage which lies almost wholly in one direction. The service affords the Department the opportunity of concentrating the phonogram work of any given area upon one larger office and a considerable number of telegraph transactions between small sub-offices and that office and other offices is avoided. Studies of the costs involved indicate that the saving on the 55% of the phonograms more than covers the loss on the other 45%, and it has been established that the phonogram service would only cease to be economical if transmissions were saved on less than 20% of the traffic.

The position as regards delivered phonograms is more difficult. At first delivery by telephone was given in all cases where subscribers were willing to accept delivery by telephone. Later, however, as the result of a study of the question it was found that delivery by telephone was uneconomical only if a telegraph or telephone retransmission is saved, and if the addressee's premises are at least 440 yards distant from the delivery office.

In the early days of the phonogram service the messages were written down at the nearest office provided with telephone facilities. It became evident from the studies mentioned above that a considerable step forward might be taken with advantage to the public and to the Post Office, and in 1924 comprehensive standard regulations were laid down.

It was provided that, as a general rule, an office authorised to accept phonograms should be a Head Office, designated the "Appointed Office," the intention being to concentrate phonogram traffic upon group centres (see Zone Routing chapter) in order to save intermediate transmissions. It was not possible to lay down any hard-and-fast rule, as it was held to be desirable that a group centre should be the appointed office for phonogram traffic originated at places within 20 miles radius from that office and are telegraphically served, exclusively or mainly, by the group centre. As an illustration of the effect of this arrangement it may be mentioned that the Central Telegraph Office became the appointed office for telephone subscribers in the Croydon area, and Sheffield performs a similar service for subscribers in the Barnsley, Chesterfield, Mexboro, and Rotherham areas.

A certain amount of local prejudice against a change of appointed office were met with. These objections were sometimes due to a misapprehension that the name of the appointed office

**EXTRA LARGE
UNIT CELLS**

**36 CELLS,
50 VOLTS (NOMINAL).**



**SPECIALLY DESIGNED
TO GIVE LONG AND
NOISELESS SERVICE
WITH HIGH POWER
RECEIVING SETS**

DIMENSIONS (including lid) 8½ x 5½ x 9½ ins. high.
MAXIMUM ECONOMICAL DISCHARGE RATE—20 milliamperes
WEIGHT—20 lbs.
PRICE £1 5s. 0d. each.

Our comprehensive Catalogue 650, giving full particulars of our Dry Batteries for H.T., L.T. and Grid Bias, also Fluid Leclanche Cells for L.T. purposes, will be sent on application.

SIEMENS BROTHERS & CO., LTD., WOOLWICH, S.E.18.

PITMAN'S BOOKS

FOR TELEGRAPH AND TELEPHONE ENGINEERS.

ELEMENTARY TELEGRAPHY.

By H. W. PENDRY. Second Edition. Specially written for candidates for C. & G. I. Examinations. 189 illustrations. 7s. 6d. net.

TELEGRAPHY.

By T. E. HERBERT, M.I.E.E., Assistant Superintending Engineer, Post Office Engineering Dept.
A Detailed Exposition of the Telegraph System of the British Post Office.
Fourth Edition. Revised and Enlarged. 1040 pages. 640 illustrations. 18s. net.

TELEPHONY.

By the same Author. This work contains full information regarding the Telephone Systems and Apparatus used by the British Post Office. 883 pages. 618 illustrations. 18s. net.

AUTOMATIC TELEPHONES.

By F. A. ELLSON, B.Sc. Hons. (Vict.), A.M.I.E.E., *Engineer, G.P.O.* An introductory treatise dealing with the fundamental principles, methods, and advantages of automatic telephony. 227 pages. 48 illustrations. 5s. net.

ARITHMETIC OF TELEGRAPHY AND TELEPHONY.

By T. E. HERBERT, M.I.E.E.; and R. G. DE WARDT, of the Post Office Engineering Department. Adapted for use by students preparing for City and Guilds Examinations (grade I). 187 pages. 37 diagrams. 5s. net.

RADIO COMMUNICATION, MODERN.

By J. H. REYNER, B.Sc. (Hons.), A.C.G.I., D.I.C., of the Post Office Engineering Dept. A manual of modern theory and practice, covering the syllabus of the City and Guilds Examination and suitable for candidates for the P.M.G. certificate. Second Edition. With Specimen Examination Questions. 220 pages. 121 illustrations. 5s. net.

THE BAUDOT PRINTING TELEGRAPH SYSTEM.

By H. W. PENDRY. Second Edition. With 72 illustrations. 6s. net.

LOUD SPEAKERS. (JUST OUT.)

Their construction, performance and maintenance. By C. M. R. BALBI, A.M.I.E.E., A.C.G.I. With a foreword by Professor G. W. O. HOWE, D.Sc., M.I.E.E. A practical handbook for all handling loud speakers. In addition, the work will be found intensely interesting by telephone engineers and others to whom the science of the accurate reproduction of sound is of importance. 111 pages. 57 illustrations. 3s. 6d. net.

Complete List post free from

PITMAN'S, Parker Street, Kingsway, W.C.2

2d.



2d.

THE PAPER THAT REALLY HELPS

SINCE 1890 when the first issue was published, this paper has been of real value to every member of the electrical profession. Its articles deal with the problems that confront the electrical man in the course of his business and keeps him in touch with all the latest developments. It can be obtained from all Newsagents **2d. every Friday** but you would be well advised to become a subscriber. The small outlay of 12/6 will ensure its delivery every week for a year. Don't delay—Send To-day to

"ELECTRICITY" 37 Maiden Lane, London, W.C.2

Silk and Cotton-Covered H.C. Copper Wire,
Asbestos Covered Wire,
Charcoal Iron Core Wire,
Resistance and Fuse Wires,
Binding Wires,
&c., &c.

P. ORMISTON & SONS,
ESTABLISHED 1793.
79, Clerkenwell Road, London, E.C.1.
"ORMISTON, LONDON."
13259 CENTRAL.

Braided and
Twisted Wires,
Bare Copper Strand
and Flexibles of any
construction. Wire Ropes and
Cords, down to the finest sizes, in
Galvanized Steel, Phosphor Bronze, &c.

TELEPHONE APPARATUS AND EXCHANGES

From a Tag to the Largest Installations.

PEEL-CONNER TELEPHONE WORKS can meet all telephone requirements whether for MANUAL or AUTOMATIC TYPE EQUIPMENTS. The factory at Coventry was specially built for the business of telephone manufacturing upon the most up-to-date lines. A large engineering and research staff is constantly employed upon the work of the present and the needs of the future. Be your wants large or small they will meet with equally earnest attention by the PEEL-CONNER Organisation.

Communicate your requirements to

PEEL-CONNER TELEPHONE WORKS

(PROPRIETORS: THE GENERAL ELECTRIC CO. LTD.)

COVENTRY, ENGLAND.

Head Office and Works:

STOKE, COVENTRY.

Telephone: Coventry 1310.

Telegrams: "Springjack, Coventry."

London Office:

MAGNET HOUSE, KINGSWAY, W.C.2.

Telephone: Regent 7050.

Telegrams: "Peelcontel, Westcent, London."

would appear on the delivered copy as the office of origin. Arrangements were, however, made for the name of the town in which the local exchange was situated to appear as the office of origin followed by the code letters of the appointed office, e.g., Chesterfield SF. The use of the code letters of the appointed office is merely to facilitate inquiry in case of complaint or mis-treatment.

The advantage of the telephone-telegram service touch the public less intimately but just as effectively as the phonogram service. Prior to 1912 comparatively little use was made of the telephone as a means of linking up Post Offices, although a few such circuits were in use as long ago as 1892. When the Post Office became the responsible authority in 1912 for local telephone communication, call offices were demanded at very small Post Offices, and when it became evident that a single circuit would carry the combined telegraph and telephone load, large numbers of lightly loaded Morse telegraph circuits were converted to telephone working and telegraph facilities were provided by means of new joint circuits at many places where the telegraph or telephone traffic alone was insufficient to justify the provision of a route of communication. Moreover, many small Sub-Postmasters had found it increasingly difficult to obtain qualified Morse operators, especially in the smaller villages, and the advent of the telephone enabled them to deal with the relatively small amount of telegraph work at their offices with greater ease and less expense.

The arrangements for dealing with telephone-telegrams follow closely those laid down for the treatment of phonograms. At the present time upwards of 6,000 offices—more than 50% of the total—dispose of their telegrams by telephone, and many other telegraph circuits are likely to be converted to telephone working in the near future. No branch of the British telegraph service is more interesting from a development point of view than the phonogram and telephone-telegram service. Its growth in recent years has been so remarkable that the student of telegraph practice cannot fail to ask himself why progress should have been so slow until the European War of 1914-1918 compelled the conversion of large numbers of lightly-loaded circuits to telephone working owing to the withdrawal of telegraphists, men and women, for service in the British Navy, Army, and Air Force.

It may quite fairly be said that, on the whole, telephone subscribers were slow to realise the manifold advantages of the phonogram service, especially in so far as they affect the delivery of telegrams. It has to be borne in mind, however, that a telegram had always been regarded as a confidential communication, and there was at first, not perhaps unnaturally, some reluctance to the adoption of a system which might at times necessitate the acceptance of a telegram by an employee. A well-established tradition could not be broken down in a week, or even in a year, but gradually subscribers began to realise that acceptance of their telegrams by telephone expedited delivery and the service has now achieved a large measure of popularity.

Statistics relating to phonogram traffic were not collected before 1907-08. In that year 4,000,000 telegrams, representing 3% of the total forwarded traffic were accepted by telephone and 2,000,000 telegrams, representing 2% of the total received traffic were delivered by the same means. In 1918-19 the forwarded traffic rose to 9,000,000 telegrams and received telegrams to 8,000,000, representing 5.75% and 5% respectively of the total traffic. In 1925-26 there was a slight increase in the number of forwarded phonograms, but in the same year delivered phonograms fell to 7,000,000, largely because delivery by telephone to addresses within 440 yards of delivery offices had been abolished.

Telephone-telegram statistics were not prepared before 1925. In that year upwards of 15,000,000 telephone-telegram transactions were recorded, and the figures for 1926 are likely to show a fairly large increase.

(To be continued.)

THE FIRST MEETING OF THE INTERNATIONAL CONSULTATIVE COMMITTEE OF TELEGRAPH COMMUNICATIONS.

THE above Committee met in Berlin last month and did some useful work in deciding certain questions vital to international telegraphy, and in placing several other vexed matters upon sounder bases for decision. The chaos into which Telegraphic matters had drifted, owing to the long period which intervened between



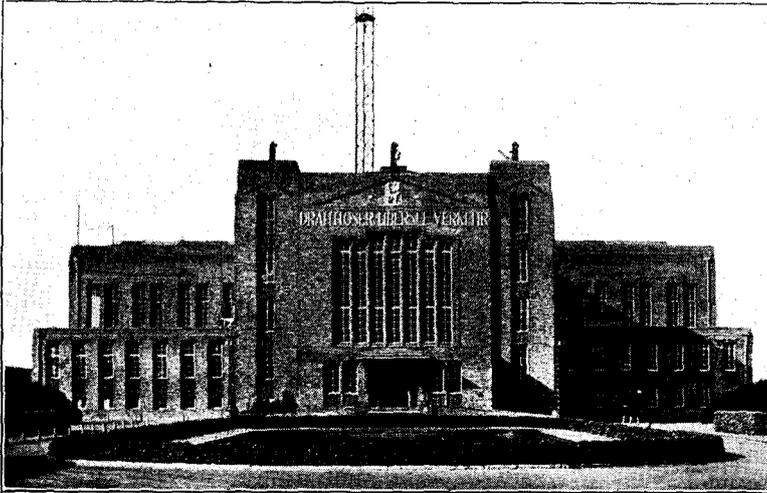
THE FIRST MEETING OF THE COMITÉ CONSULTATIF INTERNATIONAL DES COMMUNICATIONS TÉLÉGRAPHIQUES HELD AT BERLIN, NOVEMBER, 1926. HALL OF THE INSTITUTE OF GERMAN ENGINEERS WHERE THE CONFERENCE WAS HELD.

the International Conference at Paris last year and that held in Lisbon in 1908, the development of long-distance telephony, and the demand for an improved International telegraph service, as also the advance made in long and short-wave Radio communication



THE CONFERENCE IN FULL SESSION.

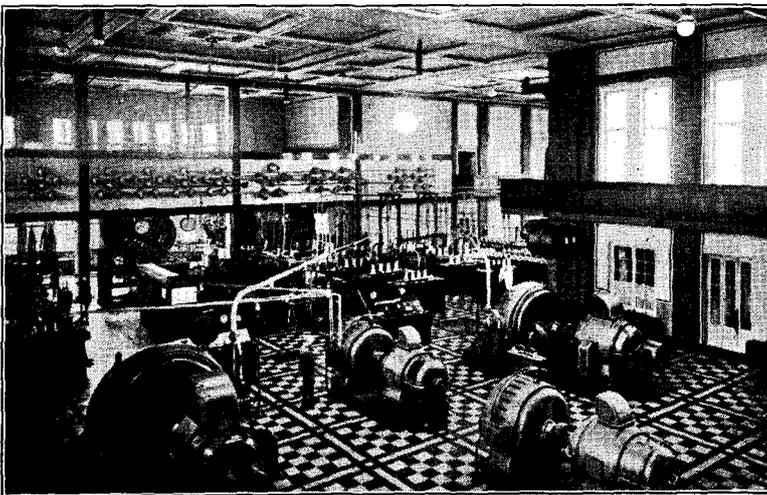
have all tended towards a demand for greater standardisation in apparatus, lines and methods of working. The progress and the trend of the progress of telegraphy in the direction of high speed working, multiplex, carrier-wave, tone frequency, keyboard perforation and type-printing reception have made more urgent the need for a common ground upon which each of the European countries could



FRONT, WIRELESS STATION OF THE TRANSRADIO CO., AT NAUCEN. THE POND IN THE FOREGROUND IS THE COOLING TANK. THE PLATFORM SEEN AT THE TOP OF THE MAST IS EXACTLY THE SIZE OF THE TANK.

work, and upon which inventors could with more certainty utilise their genius.

The recognition of these facts, therefore, induced the Paris Conference to authorise the formation of the above Committee, which commenced its proceedings on the 3rd of last month at Berlin, when in the magnificent building of the German Telegraph



MACHINE HALL OF THE WIRELESS STATION OF THE TRANSRADIO COMPANY AT NAUCEN, GERMANY, VISITED BY THE WHOLE OF THE DELEGATION BY THE KIND COURTESY OF THE DIRECTORS.

Museum the Minister for Posts and Telegraphs, Dr. Stingl, welcomed the sixty odd delegates from Austria, Belgium, China, Denmark, Danzig Free City, France, Germany, Great Britain, Hungary, Dutch E. Indies, Italy, Japan, Mozambique, Norway, Holland, Poland, Portugal, Rumania, Kingdom of the Serbes Croates and Slovenes, Siam, Sweden, Switzerland, Czecho-Slovakia, Turkey, the

Union des Républiques Sovietistes Socialistes, and the International Consultative Committee on long-distance Telephony.

Besides these there were many representatives from the private cable and radio companies. The manufacturers of all the chief telegraph instrument makers were also represented and gave most valuable information when opportunity was afforded.

Upon the election of Ministerial Councillor Arendt as President to the Berlin Committee, the roof of the German Engineer's magnificent hall in Friedrich-Ebert Strasse echoed again and again with the spontaneous applause of a gratified gathering.

This vote of confidence in the powers of the much-respected Herr Arendt was fully justified, and the more so as day after day and hour after hour he patiently, quietly and yet firmly guided the feet of the delegates through the thorny maze of the most intricate of technical points.

One felt as the last day of the Committee's proceedings came to a close that here at least had we found an ideal President who could hold the scales with absolute impartiality, and one who by the force of a personality which not only commanded the respect, but what is more the affection, of those whose privilege it was to sit beneath his aegis.

J. J. T.

TELLING THE WORLD.

It is inevitable that such a far-flung medium of disseminating requests as wireless broadcasting should, at times, be misunderstood, and Mr. R. D. Green (assistant director of the Leeds-Bradford wireless station), who lectured last night before the members of the Bradford Y.M.C.A., showed that this often happens.

Not long ago, he said, a man asked if the British Broadcasting Company would send out the description of a man whom he wanted to find as a co-respondent in a divorce case. Another request came from a dear old lady who, having missed her train, asked if the B.B.C. would broadcast the fact, and ask her relatives not to wait tea for her!

Once, a young man wished to tell the world by wireless that he was collecting tinfoil for the purpose of making a huge ball of it. He thought many listeners would like to help him in this gigantic task.

Curious compliments often came to the staff at the studio, said Mr. Green. One man wrote saying how much he appreciated their afternoon programmes. "I love to get in my armchair at home when they are on," he declared. "I sit there with a pint of beer, all nice and comfortable, and then fall off to sleep!"

Mr. Green also referred to the amazing popularity of announcers—especially in the early days of broadcasting. He recalled an incident which occurred at the London station, when an important figure in the national life of the country, only a little beneath the Prime Minister himself, had been speaking before the microphone.

The great man was met on the steps outside the building by two young ladies, who implored him to give them his autograph. He willingly complied with their request, but was astonished to see the look of dismay on their faces as they read what he had written.

"Well, what is wrong?" he asked. "That is what you asked for, isn't it?"

"Yes," they replied despondently, "but we thought you were an announcer: but, never mind, we can easily tear that page out!"—*Yorkshire Observer*.

LONDON ENGINEERING DISTRICT FOOTBALL CLUB.

THIS Club held a very successful dance at the Cannon Street Hotel on Tuesday, Nov. 30, at which about 150 members and friends spent an enjoyable evening. A Carnival Dance will be held at the same place on Jan. 5. Tickets 2s. 6d. each may be obtained from Mr. J. W. McCoy, P.O. Engineering Dept., Denman Street, S.E.1.

TELEGRAPHIC MEMORABILIA.

As all the world knows, the Beam Service between this country and Canada was successfully opened on Oct. 24 and has since continued in daily use.

One of the first telegrams to be exchanged was the following, from a body of journalists assembled in London to a similar group in Montreal, contact being absolutely direct and simultaneous:—

"The Journalists of London send their greetings through the new wireless beam service from London to Montreal to their colleagues throughout the Empire with their wishes that this new means of communication may foster further closeness of communion and intimacy within the Empire."

We have seen some very recent reports from Melbourne stating that, "the work of erecting the Australian 'Beam' Station is being delayed pending definite results of the Canadian Beam trials." It is further stated, by a financial newspaper that the Australian trials which had been fixed for October will now be considerably delayed, and that "in view of the experience in Canada it is considered improbable that the Australian stations will be able to compete with the cables for some time."

How far the latter is probable cannot, of course, be confirmed or contradicted, but it would be interesting to ascertain the degree of exactitude between the actual facts of the present daily working of the Canadian Service—admittedly still under trial but working well—and the delayed Australian opening!

Let us see what Dr. Eccles has been saying on the peculiarities of short wave and long wave working and from which we can reasonably gather that whatever difficulties have been experienced in Australia are rather those inherent to phenomena concerning which the last word is far from having been spoken. The learned doctor, among other things, referring to the work of Heising, Schelleng, and Southworth, which had consisted of actual measurements of strength at various distances: "Thus, they found that the strength varied from season to season, from hour to hour, and even from second to second. In the daytime the strength of all waves between 111 metres and 16½ metres fell off with increasing distance as fast as, or faster, than that of long waves, but at night time short waves of 111 metres and 66 metres travelled much better. What happened to still shorter waves at night was complicated by the skip, but, as a broad rule, after the skip the signals became stronger the farther they went—an amazing conclusion. It was to be noted, however, that there was usually a time in the middle of the night, say, from midnight to 3 a.m., for waves of 33 metres and distances of 1,000 miles, when the signals would not get through. Remembering that midnight occurred at different instants at different places on the globe, it would be appreciated that the reception of such signals at distances of thousands of miles was complicated very greatly by their midnight vagaries."

"The writers of the very valuable paper referred to laid stress on the instability produced by those various conditions; they had made special observations on fading and found that the rate of fading might be very slow, or as quick as one hundred times a second. Sometimes one wave faded, while another of slightly different length increased in strength. Some of those phenomena occasionally made radio-telephony possible, because of distortion. Nevertheless, very useful service could be rendered in both telegraphy and telephony by short waves, but it was important to choose the wave-lengths carefully for any given task and to suit the hour of day and other conditions. For telephony to 200 miles distance one could use 100 metres; for 500 miles, 50 metres, and then it might be possible to maintain almost a 24-hours service. For a thousand miles one could use 30 metres in the day and about 60 metres at night; for transatlantic work the wave-length should be altered between 100 and 20 metres from time to time in order to maintain reasonably continuous touch."

"From the whole mass of scientific observations now available in the technical literature of the subject, it may therefore be concluded that short waves were certainly more useful than long waves from stations of equal power for distances up to 1,000 miles. Beyond that distance the relative utility of short and long waves depended upon the kind of work to be done and the time when it was done. Amateur investigators would always find short waves vastly more interesting and much cheaper to employ than the long waves for the purpose of international communication. For commercial purposes, countries that needed to be in touch with one another for only a few hours daily would also adopt short waves. On the other hand, a commercial firm which was running a long distance service in competition with cables would find long waves more trustworthy. In such a service it was often necessary to ensure the delivery of messages within a very limited time of their being handed in; in that case long waves were best during certain hours of the day and would be used even though the plant was more costly; but there was the possibility that in the course of time methods of changing from one short wave to another exactly as atmospheric variations demanded might be developed, and such a development would put the short wave on a level with the long wave, but might, of course, at the same time, make the short-wave plant as costly as the long-wave plant."

The Sydney correspondent of the *Daily Telegraph* reports that the cable ship *Faraday* on Nov. 20, at Suva (Fiji Islands), spliced the ends of the new duplicated section of the Pacific cable from Fanning Island to Suva, a distance of 2,043 miles. The vessel started her journey from Fanning Island on Nov. 1. It was expected that the *Domina* would complete on Nov. 22 at Fanning Island the splicing of the northern section of the cable from Bamfield (British Columbia) to Fanning Island, 3,048 miles, the largest single cable

in the world. These new sections, which are of the "loaded" type, are guaranteed to work at 700 letters per minute simplex, as compared with the present 135 letters duplex. The speed will probably be greater, as 900 letters simplex are expected. If duplex working is effected, as is anticipated, the capacity will be doubled. The contract price for the Bamfield-Fanning section with the Telegraph and Construction Maintenance Company was £1,607,000, and that for the Fanning-Suva section with Siemens Bros. was £716,900. With the Southern sections duplicated in 1923, the total cost of the duplication is about £2,800,000, as compared with under £2,000,000 for the original cable. The whole cost of the duplication will be met from profits. Commercial communication will not be effected for a month, as the contractors will test during that period.

JUST IN TIME! As we go to press we learn that the new cable has quite fulfilled expectations in dealing with actual traffic.

The following, from the *Sydney Morning Herald*, is placed under the heading of "Telegraphic" in order to emphasise the use of "carrier waves" and the spread of teletype forms of apparatus in the Antipodes, and not to accentuate the loss upon both telephone and telegraph services "down under"!

Mr. H. P. Brown, secretary to the Postmaster-General's Department, recently stated that the telephone was becoming an increasingly important item in the development of country districts. Last year the Department lost £275,000 on country telephone services, and this year it might amount to £300,000, but the value of the services to people living in rural districts was immeasurable, and it was the Government's intention to continue the policy of decentralisation. He announced that important alterations and additions would shortly be made to the Goulburn post office, which, he said, had become a most important centre for telephone and telegraph business. Equipment to amplify the current for all the long-distance southern trunk calls, which come through Goulburn, will be installed here. Six new branches are to be formed, the other five being in Newcastle, Lismore, Wagga, Dubbo, and Armidale. The Goulburn station will be equipped with apparatus to amplify and relay the new telegraph system by means of carrier wave wireless, the wave-length being greater than that used by broadcasting stations. At present 10 different telegraph messages can be sent at the same time over one wire, which is also used at the same time for telephone messages. The improvements will enable this number to be increased. A special teletype machine will be used for the reception of messages. The Department has been for some considerable time considering the zone system of charging for telegrams, though so far no definite decision has been arrived at. The loss on the direct mileage system of telephone calls was £100,000 last year. The wages paid by the Department amounted to £500,000 more last year than previously.

AUSTRALIA.—The *Electrical Engineer of Australia and New Zealand* says that the new broadcasting station, 7ZL, which is to be built by the Tasmanian Radio Pty., will soon be under construction. The studio premises have been secured at Hobart, and the transmitting station will be on the higher levels out of the city. Mullard air-cooled transmitting valves will be used, each of 1,000-watt rating. A relay station is to be installed at Launceston to relay 7ZL programmes for northern listeners.

BRAZIL.—From Rio de Janeiro, through *Reuter's Trade Service*, we learn that the Brazilian Government has given permission for an organisation called the Brazilian Press to be formed for the purpose of receiving and distributing messages, as well as maintaining and utilising a radio station exclusively for this purpose.

CANADA.—There are now 543 wireless transmitting stations in Canada, says *Reuter's Ottawa correspondent*. Of that number 67 are broadcasting stations, 356 are amateur and experimental, and 67 are code stations, while 46 are operated on the coasts and Great Lakes for the benefit of shipping. All broadcasting and other wireless in the Dominion is under the direction of the Dominion Government Department of Marine and Fisheries.

The production of radio apparatus in Canada during 1925 reached a total value of \$5,548,659.

The number of licences issued during 1925 was 134,486.

CZECHO-SLOVAKIA.—By *Reuter's* and other agencies it is stated that, the new Pressburg (Bratislava) station will begin operations on Nov. 1, using a wavelength of 300 metres, that there are 4,000 registered listeners in Pressburg town, and 1,400 more in the surrounding district, that the announcer will be a woman, and that the number of wireless subscribers increased by 700% between Jan. 1 and Sept. 1 this year. Several training schools have installed stations, the use of which is shared by the other establishments. The Ministry of Education is beginning to interest itself officially in the development of broadcasting, and has included in this year's Budget a sum of 100,000 crowns for the purchase of apparatus.

FRANCE.—An autographic telegram office on the Belin system has been opened at Marseilles, which town will now be able to communicate by "belinogram" with Nice, Paris, Lyons, and Mulhausen, where similar offices exist.

GREAT BRITAIN.—In September, 1926, the number of broadcast radio receiving licences in force in this country was 2,105,000, an increase of 459,793 since December, 1925. The *Radio Times* points out that 34,230,000 of the population (in Great Britain only), or 79.74%, are living within "crystal" range of a station. In three years the service areas have been extended so as to cover twice the population served in December, 1923, and the number of licences has increased three and a half times in the same period.

The wave-meter of the London broadcasting station, which has been made in Belgium, consists merely of a coil with a variable condenser in parallel with it, and there are two methods of operating it. The engineer can watch a little electric lamp, which glows when the instrument is tuned to the exact wave-length on which 2LO is transmitting; or, if greater accuracy is desired, he can watch the needle of a galvanometer connected with a thermo-couple, which is heated when 2LO's wave-length is found. The instrument measures to an accuracy of 300 parts in a million.

A luncheon was given on Nov. 2, at the Mansion House, by invitation of the Lord Mayor, to celebrate the completion of the equipment of London hospitals with wireless installations through the funds raised by the *Daily News*. Since the fund was instituted in May, 1925, a total of 122 hospitals have been equipped, and 13,456 headphones and 479 loudspeakers provided at a total cost of just over £25,000. In addition, advice and technical assistance has been given to 173 funds in the provinces.

Mr. Newcomb Carlton, president of the Western Union Co., recently arrived at Southampton from New York. He is attending a conference of various cable companies in England, the purpose of which will be to discuss means to expand business.

The Marconi International Marine Communication Company states that it has recently come to an arrangement with its principal competitor, the Radio Communication Company, and that it should enable both companies to effect substantial reductions in expenditure and to improve the service to shipowners. Each company will continue to develop and supply its own types of marine equipment.

A meeting of the Pacific Cable Board was convened by Mr. Amery, Colonial Secretary, in London on Oct. 19, and was attended by the Dominion Premiers, who are taking part in the Imperial Conference. Other meetings have taken place since.

The cause of the delay in the introduction of the new European wave-lengths, as allotted to the different countries by the Office Internationale de Radiophone, Geneva, is the desire to ensure accuracy, without which the plan would be useless. Capt. P. P. Eckersley, chief engineer of the B.B. Co., points out that, theoretically, and to avoid stations using the same wave-length heterodyning each other, the accuracy of adjustment of individual stations should be of the order of 20 parts in a million; actually, however, the wave-meters will be accurate to 300 parts in a million, a higher degree not being practicable. The metres were designed by the International Technical Committee and worked out in detail by MM. Brailard and Divoire, of the Belgian administration; the master wave-meter and other instruments (which will be sent to every European country) will be calibrated with it, are being constructed in Belgium and have taken longer to make than was anticipated; hence the delay.

A new wireless station is, it is understood, to be established at Mablethorpe, Lincs., for ordinary naval and shore work. When complete it will replace the present temporary Humber station.

The *Electrical Review* learns that a general meeting of members of the Radio Manufacturers' Association has been convened for Wednesday, Dec. 8. The Association is now functioning as a properly-constituted body with a steadily increasing membership. The appointments of president, chairman and other officials have been delayed in order that every member may have a voice in these elections. The important matter of exhibitions is included in the Association's programme of activities, and already the New Hall at Olympia has been booked for next year's show, while negotiations are proceeding for securing that building for 1928, 1929, 1930 and 1931.

GREECE.—*World Radio* says that at present there is no broadcasting service in Greece, and, owing to the severe conditions imposed with regard to the erection and working of wireless sets, there are very few private stations. The wireless laws of February and December, 1924, embody two forms of permits, one for amateurs for tests with transmitting and receiving sets working under 300 metres with a range of 30 kilometres, issued by the naval authorities, who subject the set to a thorough examination. The cost of such a permit amounts yearly to 50 francs. The second kind of permit refers only to receiving sets, and only plant which does not oscillate is allowed; only frame aërials can be used, and the set must not go beyond 2,000 metres wavelength. Permits can only be held by Hellenic citizens.

HAYTI.—The following is an extract from the August *Bulletin* of the Republic of Hayti, which has been forwarded to the Department of Overseas Trade by His Majesty's Chargé d'Affaires at Port-au-Prince: "One of the most interesting projects undertaken by the Direction Générale is the radio broadcasting station which was completed in August with gratifying results. The Direction Générale is in receipt of a very great number of complimentary communications from receiving stations which have been able to hear station 'HHK' at Port-au-Prince. The station is of 1,000 watts capacity, and it has been heard in Colorado, Florida, Georgia, Connecticut, Porto Rico, Dominican Republic, Venezuela, and many other places. The work of installing receiving sets at various places throughout the Republic is now under way and, although regular programmes have not as yet been arranged, it is expected that within a very short time they will become regular."

HOLLAND.—According to Reuter's Rotterdam Correspondent, the much-discussed scheme of relaying wireless programmes by ordinary telephone, which was initiated some months ago by The Hague Municipal Telephone Service, was successfully inaugurated there on Nov. 1. It is claimed that this is the first occasion on which the ordinary telephone subscriber has been enabled to listen to wireless programmes without the assistance of a special wireless set. So far, arrangements have only been concluded with the Paris,

Daventry, and Hilversum stations for the "transmission" of broadcasting programmes. A novel feature of the new service is that the ordinary telephone service is not in any way interrupted; as soon as a listener is called on the telephone, the wireless broadcasting connection is automatically disconnected.

Commerce Reports informs us that regular wireless connection between the Netherlands and Curacao, Dutch West Indies, will be accomplished soon by means of short-wave transmitters. Experiments conducted by the Technical Bureau of the Department of the Colonies have met with unusual success at night, and endeavours are now being made to establish satisfactory connection during the day. The Bureau is conducting similar experiments with a view to establishing communication between the Netherlands and the Netherlands East Indies. Other information reaches us to the effect that 90% of the normal daily traffic is already and frequently being dealt with by this means.

The Government Telegraph and Telephone Authorities contemplate the erection of a radio-telephone transmitter which will be at the disposal of business people who wish to make announcements, at a moderate tariff. Tests have been made from Scheveningen Harbour, from which it appears that with 3 kw. aerial energy sufficient power can be generated to reach all parts of Holland without disturbing other stations on a 1,950-metre wavelength,

INDIA.—To establish a broadcasting station in Calcutta, which the Indian Broadcasting Company proposes to do, the company requires an area of five *cottahs* of land as a site for the erection of two masts or towers and a transmitting station, and a further area for the construction of an "earth" system. Negotiations are now pending for a site in the Cossipore-Chitpore Park, which the Improvement Trust is constructing. It is understood that if the scheme matures, the broadcasting station will be of similar capacity to that of London. The transmission masts will probably be 150 ft. high, and of graceful structure so that they will not be likely to detract from the amenities of the park. It is proposed that the transmission station shall be of ornamental and approved design. Terms between the company and the Improvement Trust have not yet been definitely arranged, and even if the scheme is carried through it will be of a purely experimental character, its permanence depending upon its success as a commercial venture.

JAPAN.—*Commerce Reports* states that the Government has appropriated 525,187 yen for the construction of radio stations at the following towns:—Taihoku, Tamsui, Giran, Taito, Karenko, and Itabashi, work on some of which is about to begin. The Bureau of Communications and Transportation of the Taiwan Government General has charge of all matters connected with radio installations and operations, excepting such as are under the control of the Imperial Navy. The apparatus used in home installations in this district is almost exclusively of American make.

Reuter's Tokio agency adds that an agreement has been reached between the American Radio Corporation and the Japanese Government for lower transpacific wireless press rates, to become effective on Nov. 1. European companies concerned have not yet replied to Japan's proposals.

With further reference to radio matters in Japan, and according to the British Commercial Secretary at Tokio, "the establishment of broadcasting stations in Tokio, Osaka and Nagoya during 1925 met with immediate popular support and radio quickly became the vogue; at the end of April, 1926, 300,000 licences had been issued. It is reported that the three stations mentioned will shortly be amalgamated into one large corporation, which will operate seven main stations and four relay stations. Receiving sets are subjected to an examination at the Electrical Laboratory, and subject to special sanction the wavelength range is restricted to 400 metres. The market for radio apparatus was soon heavily overstocked, and importers became extremely cautious in placing new orders, while prices slumped. A recent report states that the market is still congested; dealers expect at least a 20% margin, but very few are able to work on this basis. There are no fixed prices, since dealers dispose of their stock as best they can. Low-priced sets and accessories, including loudspeakers, still find a market, but expensive outfits move very slowly indeed. There is an opening for loudspeakers which could be retailed at not more than 20 yen (about £2); at present one or two are offered, but they are not satisfactory. Equally a market exists for receiving sets giving reasonable results at a moderate figure; the average Japanese cannot afford to pay much for a luxury such as a receiving set. The simpler types of receivers, as also cabinets for more expensive sets, are made in Japan. In imported goods, American, and in a lower degree German, apparatus offers the principal competition to be faced by British manufacturers."

Reference has already been made to the institution of broadcasting in Japan. In connection with another branch of the radio art, long-distance telegraphy, the same report says that a company was formed in November, 1925, with the title the Japanese Wireless Telegraph Co., Ltd., and a capital of 20 million yen. One quarter of the capital is paid up, and the object of the company is to supply and erect for Government use equipment for handling radio telegrams. It is under Government control and has taken over the whole business of radio-telegraphic communication with foreign countries. In return for a proportion of its shares the Government station at Iwaki has been transferred to the company, which will in course of time erect stations for communication with Europe (one), America (two), China, Australia, India and Siberia (one), and a central receiving station.

A law passed in November last requires all vessels of 2,000 tons gross or over, and those carrying more than 50 persons, to be equipped with a radio-telegraphy installation. The law applies to foreign shipping entering or clearing ports within the area over which the law is enforced.

LITHUANIA.—Reuter's Trade Service learns that the Kaunas wireless station is trying to place its working on such a footing that it will cost the Treasury less. To that end a measure is being prepared for the introduction of a wireless monopoly in Lithuania, i.e., the Government organs themselves will undertake to popularise broadcasting, to supply subscribers with the necessary apparatus, &c. It is proposed even to manufacture wireless apparatus in Lithuania and to import wireless parts from abroad, though wireless experts declare that a wireless industry is impossible at present in Lithuania. Generally speaking, it is intended to organise wireless in Lithuania on the model of Latvia, whither M. Jurkis, superintendent of the Kaunas wireless station, is going to study the wireless situation there. The exchange of private wireless telegrams with foreign stations is in the experimental stage; private telegrams are transmitted by both the Morse and Hughes apparatus. The Lithuania wireless station will be registered at the International Wireless Bureau and begin officially to operate only when a proper daily programme has been fixed. In the meantime material for programmes is being collected. A chamber installed with microphones suitable for speeches and music has recently been arranged.

LONDON.—The figures which appeared under this heading in our last issue referred to the Pacific Cable Board.

PERU.—From official sources we learn that the Peruvian Broadcasting Co. has liquidated, and its selling rights and property have reverted to the Government. Broadcasting is to be administered by the Marconi Co. for the Government, and expenses will be paid by licence fees of £1 semi-annually on each receiving set. The monopoly is now void, and anyone may import and sell radio apparatus.

SIERRA LEONE.—The annual report for 1925 on the Sierra Leone (West Africa) railway includes an account of the operation during the year of the telegraph system of the country and the telephone exchange in Freetown, both of which are under the management of the railway. The total mileage of telegraph and telephone lines at the end of the year was 1,244, an increase of 40 miles as compared with the preceding year, due to the extension of telephone lines in Freetown. Reconstruction of the Songo-Port Lokko line was completed during the year, and work on the rewiring of a number of stations commenced. Excluding messages on railway service, the number of telegrams dispatched during the year by the public increased by 7,225 to 52,431, and Government messages decreased by 1,210 to 17,089. The number of electric train-staff instruments was 78, the number of telegraph instruments was 43, and the number of telephone circuits on the Freetown exchange was 97, or nine more than in 1924. The number of subscribers, excluding the railway, connected to the telephone exchange was 34 public and 17 Government. The revenue from the telegraph service decreased by £235 to £5,265, and the income from the telephone system increased from £1,334 to £1,440. The European telegraph section, which had been under the supervision of an African telegraph inspector, was taken over by Mr. G. Cresswell, of the Nigerian Posts and Telegraphs Department in March, 1925.

SWITZERLAND.—The American "Teletyp" telegraph printing system has just been adopted in connection with the telegraph service between Berne and Biel, Switzerland. It is stated that the system enables 230 words per minute to be transmitted and printed over a distance of several hundred miles, and possesses several other advantages over the older Hughes system.

UNITED STATES.—The Department of Commerce continues to grant licences for new stations. Five were announced recently within one week, and the total for the country is now close to 600. *World Radio* wonders where wave-lengths are found for them all. Fortunately, some of the stations are inactive and others "go on the air" only at fixed intervals, or on special occasions.

URUGUAY.—Reuter's Trade Service in Montevideo says that the Government of the Banda Oriental has invited tenders for the erection of a new station near Montevideo for broadcasting. Tenders should be addressed to Señor Gilberto Lasnier, Director of the Radio Communication Service, Montevideo, Uruguay.

VENEZUELA.—Reuter's Trade Service, Caracas, informs us that a broadcasting station has been erected at Caracas and put into use. The range of the station, designated AYRE, is 2,000 miles. Preliminary tests have proved that signals can be heard in many of the large towns of the Republic, in some parts of the neighbouring State of Colombia, and as far as the West Indian islands of Trinidad, Barbados, and Puerto Rico.

YUGO-SLAVIA.—The regulations governing the use of private radio stations were amended on July 1, 1926. A comparison with those originally issued in 1923 shows much fuller elaborations, but the essential features remain almost unchanged, and the new rulings are not less restrictive than the old ones.

The following cutting from *The Chatham and Rochester News* will interest those still remaining in the C.T.O., London, who recall Mr. W. R. Williams. Says the journal just mentioned: "There are many of his old friends in this district who will be interested to learn of the celebration of his golden wedding on the 11th instant, of Mr. Walter Richard Williams, of Channel View, London Road, South Benfleet, Essex. Mr. Williams is an old Strood boy, being the elder son of the late Mr. John Williams, of Strood, and brother to Mr. A. E. Williams, Chief Officer of the City of Rochester Fire Brigade. He was educated at Strood St. Nicholas Church of England School and on leaving there entered the S.E. & C.R. Railway service in the telegraph department at Strood Station.

On the Government taking over the telegraph service in 1870 he was removed to Faversham Post Office, and in 1871 transferred to the central telegraph office at St. Martin le Grand, London. From [there he was subsequently appointed Postmaster at Godalming, Surrey, and retired on pension

at the age of 60. Mr. Williams married a Hoxton lady, Miss Caroline Jane Baker, at the Parish Church of St. John the Baptist, Oxton, on Oct. 11, 1876. I am pleased to learn that Mr. Williams is still in the best of health, but unfortunately his wife is an invalid."

When one is leaving the Telegraph Service one's thoughts turn to one's relics of the past in connexion with the interest which has occupied the greater part of one's working life. Turning over some old papers the writer has come across one or two documents the description of which may prove as interesting to my readers as to myself, and I make no apology therefore for describing a telegraph form of the Submarine Telegraph Company which the compositor will perhaps be able to set out as far as possible, per copy, thus:—

| | | |
|---------------------|---|---|
| PREAMBLE. | | <i>Government or (Embassy) Despatch Form.</i> |
| Inst. | SUBMARINE TELEGRAPH COMPANY. | |
| Foreign No. | in connection with the | |
| No. of Words | BRITISH AND IRISH MAGNETIC TELEGRAPH CO. | |
| No. of Groups | No. | |
| | CENTRAL STATION | |
| | 58, THREADNEEDLE STREET, LONDON, E.C.* | |
| | <i>(removed from 30, Cornhill).</i> | |
| | At m. on day the day of 1867. | |
| | RECEIVED THE FOLLOWING TELEGRAM IN LONDON. | |
| | Sent from on at m. | |
| | To | |
| | Address | |

On one of the outer edges of the form was printed the following information:—

"Direct Submarine wires to France, Belgium, Hanover and Denmark, via Calais, Boulogne, Dieppe, Ostend, Emden and Tönning."

On the other: "Direct wires to Berlin, Vienna, St. Petersburg, Paris, Brussels, Hamburg, Copenhagen, &c., via Calais, Boulogne, Dieppe, Ostend, Emden and Tönning."

On the back of the form appeared the conditions of acceptance of the telegram from which it will be gathered that the companies did not take much of the risk, for:

"The Company will not be responsible for Mistakes in the transmission of either repeated or un-repeated Messages, from whatever cause they may arise.—Nor will they be responsible for delay in the transmission or delivery, nor for non-transmission or non-delivery of any Message whatever, whether repeated or un-repeated.—No Message that is unintelligible can be transmitted to the Continent in consequence of the regulations of the Foreign Governments.—These Companies reserve to themselves the right of refusing all those Despatches which in their opinion are unintelligible.—All Persons sending more than one Message as a Single Despatch will be held liable to pay such further sum in addition to the amount paid on transmission, as would have been charged by these Companies if each Message had been sent separately."

With this same form I found another relic. It was an original letter sent to the Superintendent of the Transmission Department of the Company from the Secretary of the same instructing the former of certain staff changes which were to be made. The letter was written throughout by the hand of the then Secretary of the Company, and my readers will doubtless wonder what must have been the Secretary's estimate of the intelligence of the head of the Transmission Department when he wrote as follows to his subordinate, "for his guidance."

It should be stated also that the Secretary and the Superintendent were in the same building, that the letter was written on the company's usual letter paper, was neatly folded in a small envelope, and commenced as follows:—

"Dear Sir, " 11th April, 1867.

"Referring to my letter of the 29th March and the enclosure which accompanied it, I beg to inform you that I have made some alterations in the Rota therein laid down for your guidance, and communicate them to you below:—

"In future there are to be—

| | |
|---|-------------------|
| 9 Clerks and 2 Boys coming on duty from | 8 a.m. to 4 p.m. |
| 12 " " 1 Boy " " " | 11 a.m. to 7 p.m. |
| 1 Boy " " " " | 1 p.m. to 9 p.m. |
| 8 Clerks and 2 Boys " " " | 4 p.m. to 12 p.m. |
| 6 " " " " | 12 p.m. to 8 a.m. |
| Total, 35 Clerks and 6 Boys. | |

The effect of this arrangement will be that you will have 6 Clerks on duty between midnight and 8 a.m., 9 Clerks and 2 Boys between 8 a.m. and 11 a.m., 21 Clerks and 4 Boys between 11 a.m. and 4 p.m. (One of these boys coming on at 1 p.m.), 20 Clerks and 4 Boys between 4 p.m. and 7 p.m., and 8 Clerks and 3 Boys between 7 p.m. and midnight (1 Boy leaving at 9 o'clock).

"I am,
"Dear Sir,
"Yours truly,
"..... Esq.,
Superintendent,
Transmission Dept."
"Secretary."

* The site is now occupied by the present new building of Threadneedle Street B.O.

The Telegraph and Telephone Journal.

PUBLISHED MONTHLY IN THE INTERESTS OF THE TELEGRAPH AND TELEPHONE SERVICE, UNDER THE PATRONAGE OF THE POSTMASTER-GENERAL.

| | | |
|---|---|---|
| <i>Editing and Organising Committee - - -</i> | } | J. STUART JONES. JOHN LEE. J. J. TYRRELL. W. A. VALENTINE. J. W. WISSENDEN. |
| <i>Managing Editor - - -</i> | - | W. H. GUNSTON. |

NOTICES.

As the object of the JOURNAL is the interchange of information on all subjects affecting the Telegraph and Telephone Service, the Managing Editor will be glad to consider contributions, and all communications together with photographs, diagrams, or other illustrations, should be addressed to him at the G.P.O. North, London, E.C.1. The Managing Editor will not be responsible for any manuscripts which he finds himself unable to use, but he will take the utmost care to return such manuscripts as promptly as possible. Photographs illustrating accepted articles will be returned if desired.

VOL. XIII.

DECEMBER, 1926.

No. 141.

FARTHER AND FARTHER STILL.

WHILST the imaginative or credulous grope dimly after wireless communication with Mars (though possessing but the slenderest grounds for believing that planet to be inhabited, and ignorant whether, if inhabitants there be there, they are of subhuman, superhuman, or totally inhuman nature, whether their mode of communication is by speech or some sort of sign unconceived or inconceivable by us on earth, or whether if any Martian signs or signals did reach the earth it would be possible for linguistic or telepathic genius to interpret them), the British Post Office and the American Telephone and Telegraph Company are concerted in the more prosaic endeavour of exploring the possibilities of telephonic communication across the Atlantic. And yet we think the adventure which involves the successful transmission of speech through the ether over more than 3,000 miles of ocean and considerable lengths of land-line at each end is the feat which stirs the imagination the more strongly of the two. *Sic itur ad astra* rather than by wayward flirtings with an unresponsive Mars. Our readers will have learned from the Press that representatives of the American Telephone Company have lately visited this country to arrange the details of a radio-telephone service by means of which subscribers in London will be able to be connected with subscribers in New York and *vice versa*, and although it is yet too early to forecast

the date by which all physical difficulties will be overcome, all complex details settled and a commercial service offered to the public, the knowledge that successful transmission of speech has been obtained in prolonged and repeated tests is very encouraging, and opens up a vision of the widest and most interesting possibilities.

To be able to call up at will a correspondent from amongst the million and more subscribers on the New York exchanges, and to hear his voice transmitted as clearly as over an inland trunk circuit, is an experience which provides a thrill even in these days of ever-increasing scientific marvels. What ultimate developments may arise from this initial experiment in trans-oceanic speech it is impossible to conjecture; we only know that the wonders of to-day become the commonplaces of to-morrow.

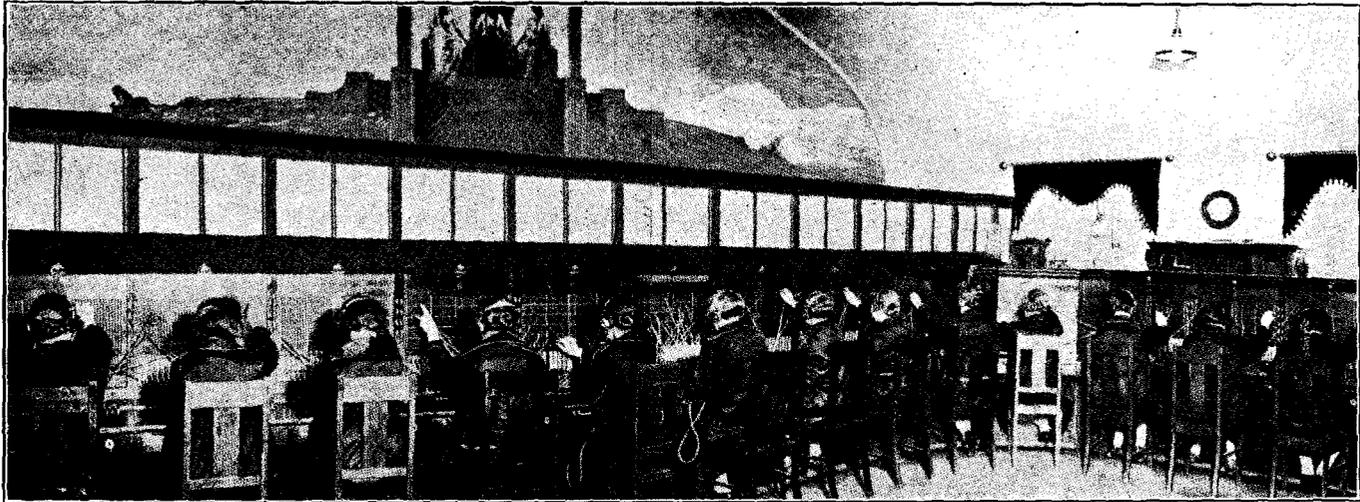
In the more explored field of ordinary cable telephony great progress is also in view. The recently established service with Germany has demonstrated that speech with Königsberg, over a thousand miles distant from London, is in every way satisfactory. The inauguration of services to Sweden, Austria, Denmark, and Czecho-Slovakia is the subject of preliminary tests and discussion, and direct communication with these countries will undoubtedly come in due time. Altogether 1927 promises to be an epoch-making year in long-distance telephony.

SUGGESTIONS AND AWARDS.

It is always difficult to allay suspicion on the part of those who consider they have been unfairly treated, but we should like to take this opportunity of assuring the writers of the letters appearing in our October and November issues of the impartial character of the Awards Committee which deals with suggestions received from the staff. This Committee consists of representatives of the various branches of the service, and carefully considers and adjudicates upon suggestions which come before its notice. As most of our readers are aware, suggestions may be sent to the Committee direct or through a superior officer, as the originator may prefer.

It is quite conceivable that a suggestion referred to the Committee some years ago may have been unsuitable for adoption at that time, but may, in present-day conditions, become desirable and be introduced quite independently of the original suggestion. In such cases the proper course would obviously be for the originator to draw the attention of the Committee to his earlier suggestion when his case would doubtless receive sympathetic treatment.

The consideration of suggestions involves an enormous amount of work in weighing the pros and cons, and the relation of each case to its predecessors, and only those who have had experience of the methods of the Committee can fully appreciate the time and care spent on its deliberations. As a human institution it may have made an occasional error of judgment, but we can at least claim for it freedom from partiality or prejudice.



TELEPHONE EXCHANGE, REYKJAVIK, ICELAND.

HIC ET UBIQUE.

In *Iceland* they are celebrating the twentieth anniversary of the opening of the telephone and telegraph service in that country, and our contemporary *Simibladhíð* devotes a special number to the occasion. In 1906, also, the telegraph cable connecting Iceland with the rest of Europe was laid by the Great Northern Telegraph Co. The inland telegraph service is largely of what we call a 'phonogram' character. The telephone system has developed very rapidly and now contains 3,642 stations, or 1 for every 27 inhabitants, thus giving Iceland sixth place in telephone development amongst European countries. We reproduce a picture of the Reykjavik telephone exchange.

The Standard Telephones & Cables Company recently sent us the following interesting notice:—

The steady improvement in Irish conditions is reflected in the announcement that STANDARD TELEPHONES AND CABLES, LTD., of London, have been commissioned by the Irish Post Office to supply a Broadcasting Station for Cork, and this will be located in the Gaol, now fortunately unrequired.

The station will be of a similar type to that now in operation at Birmingham, but of an approximate 3-k.w. Geneva rating.

The notice was headed

FROM GAOL TO BROADCAST STATION,

and our first horrid suspicion was that "Uncles" were in future to be recruited from the criminal classes!

Sir Ernest Benn, at an after-luncheon speech in Manchester, took us all to task for our conservatism in matters mechanical. The *Manchester Guardian* is moved to say, "Evidently our passion for the patent potato peeler is not what it might be nor can we be persuaded to 'tell it by telephone.' It is not by their fruits, then, but by their gadgets that ye shall know them. Efficiency, I am glad to note, has at last its index number for 'the number of telephones per 1,000 people in 1924 was in America 145, Canada 115, Denmark 89, New Zealand 80, and Great Britain only 25.' I am afraid, however, that like other index numbers this one leaves me wondering of what tendency it is really the index; is it necessarily a mark of efficiency or merely of peculiar necessity, or does it show a social habit which has little relation to these?"

Of course, as telephone men, we in the service ought to agree that a plethora of telephones should indicate the highest efficiency in any given country. But we agree that the index wants adapting to the temperament and to the business and social habits of different nations.

The following unsolicited testimonial was recently received from a subscriber in Rossendale:—

We are accustomed to complain when the service is not all that we think it should be, and it is, therefore, only right that we should express our satisfaction when we are well served.

Owing to the serious illness of our son, who was away at School at Cross Hills, near Keighley, it was necessary for us to do a lot of telephoning on the night of Saturday, Oct. 9, and on Sunday, Oct. 10, arranging with surgeons, nursing homes, &c., and communicating with the doctor at Cross Hills.

The storm during the night of the 9th interfered with the working of our own telephone, but owing to the help and cheerful assistance at the Rossendale Exchange, we were able to carry on as if nothing had happened, and we desire to express our gratitude to the officials and to call your attention to the excellent service they rendered at a very trying time.

"I went to an hotel this morning," says a writer in the *Morning Post*, "to see a French friend, who, though not well acquainted with London, talks English moderately. I found him in travail with the telephone in his room. "Twelve thirty-four," he shouted, and after the numbers followed strange sounds, which after several repetitions I transliterated as "moentvuf."

The telephone girl understood the figures expressed in the Paris fashion, but could make no more out of the mysterious exchange than I could. At last my friend turned to me in despair: he pointed to the telephone book and showed me MOUNTVW 1234.

Personally we consider Moentvuf a very creditable French pronunciation of so characteristically Anglo-Saxon a word as Mountview.

According to a further report in the *Electrical Review*, Dublin's first automatic telephone exchange, to serve about 1,600 subscribers but with a capacity for 4,000 lines, will be opened early next year. The new exchange will give relief to the Central exchange, which has found great difficulty in meeting the increasing demands on its services. Six months later the Merrion exchange will be completed, and a third, to include all the centre of the city with Drumcondra and Clontarf, will follow. The authorities expect that in due course about 50,000 telephones will be working in the Dublin area. So far as is possible, Irishmen only are being employed in the work of installation.

Trunk telephone communication has, according to *Indian Engineering*, been established between Mussoorie and the principal stations in Bombay, Punjab, and the United Provinces circles, as far as Bombay, Peshawar, and Benares respectively.

South of the Equator.

THE original walls of the City of Buenos Aires were built by Don Pedro de Mendoza in 1535. On this ancient site stands modern Buenos Aires, the "Paris of the Western Continent," a city of beautifully designed buildings, extensive parks and wide boulevards.

With a population of over two million this great city is the central point for varied commercial and industrial activities. Early in 1919 the United River Plate Telephone Company began the installation of Strowger Automatic equipment in Buenos Aires, realising, largely through their own experience, that the telephone traffic needs of the future could be met satisfactorily only by automatic means.

Even before this, many other exchanges in the Argentine operated by the same Company, including Cordoba, La Plata and Rosario, were supplying their telephone users with modern service through the use of Strowger Automatic equipment, furnished by the Automatic Electric Inc., the originators and pioneer manufacturers of Strowger Automatic telephone equipment.

Automatic Electric Inc.

FACTORY AND GENERAL OFFICES: 1033 W. VAN BUREN ST.
CHICAGO, U.S.A.



THE NEW BROADCASTING ORGANISATION.

THE Post Office licence to the British Broadcasting Company will expire on Dec. 31, 1926, and last year the Government appointed a Committee under the Chairmanship of the Earl of Crawford and Balcarres, to advise as to the proper scope of the Broadcasting service and as to the management, control and finance thereof after that date. As the result of the advice of that Committee the Prime Minister proposes to recommend that a new corporation entitled the British Broadcasting Corporation shall be established under a Royal Charter, and that five Governors shall be appointed for the initial period of five years. The names of these Governors are given in another column.

The draft Charter and licence to the Corporation were presented to Parliament on Nov. 10 as Command Paper No. 2756, together with an agreement of Nov. 9 setting forth the conditions of the final settlement between the Post Office and the British Broadcasting Company [Command No. 2755]. To take the latter document first, the effect of the agreement may be briefly summarised as follows:—

The Postmaster-General will pay the Company—subject to Parliamentary approval—the sum of £620,000 to cover (a) the cost of programmes during the nine months ended Dec. 31, 1926; (b) any expenditure on capital construction during the rest of the year; (c) repayment of share capital at par; (d) dividend at 7½%; and (e) the cost of liquidation. The Company will hand over to the Postmaster-General, or his nominee, without charge, the whole of their plant and assets, lock, stock and barrel, the accounts of revenue and expenditure being divided as at midnight on Dec. 31. The surplus, if any, after liquidation will be surrendered to the Post Office.

The Charter contains a recital of the powers which may be exercised by the Corporation in the furtherance of their business, and in this respect it practically coincides with the Memorandum and Articles of Association of the Company; it appoints the first Governors and settles their remuneration, it provides for the issue of a Post Office licence for 10 years, and it authorises the raising of capital to the extent of £500,000, subject to the establishment of suitable sinking and reserve funds. The draft licence follows closely the lines of the Company's licence. The financial provisions are, however, somewhat different. The Post Office Royalty is fixed at £10 per annum for each station instead of £50; and, after deduction of 12½% for administration and collection (including enforcement of the Statutes) the Corporation will receive out of the revenue from wireless receiving licences the following percentages, viz.:—

| | Per cent. |
|-------------------------------|-----------|
| First million licences | 90 |
| Second „ „ | 80 |
| Third „ „ | 70 |
| All additional „ „ | 60 |

It is the understanding that this percentage is open to reconsideration at the end of two years if the Corporation find the revenue insufficient. The Postmaster-General retains the control of the broadcasting service, but it is his expressed intention to allow a wide discretion to the new Corporation.

It will be seen that the new authority will not be a Government Department, and its staff will not be civil servants. It is contemplated that the plant and staff of the British Broadcasting Company will be taken over *en bloc*, and it will be for the Corporation to decide what, if any, staff alterations or additions may be necessary and what rates of pay, &c., shall be offered to any new entrants.

The cost of carrying out these proposals and the policy involved was submitted by the Postmaster-General to the House of Commons in the form of a supplementary estimate on Nov. 15. He explained fully the proposed arrangements, and, although the debate lasted four hours and various criticisms were made, there was no strong opposition, and the motion was agreed to without a division. The debate occupies 87 columns of *Hansard*, which is somewhat heavy reading, but there were lighter touches here and there, some of which we propose to mention.

Some heat was generated by ribald laughter at a demand for the use of the Welsh language in programmes, and a later speaker suggested in that connexion that Scotland and even Southwark had also languages of their own.

A broadcasting service “differs fundamentally and essentially from almost any other enterprise that can be imagined. The only analogy, I think, is a racecourse, and that is a bad analogy.” The speaker explained that the view of a race could be restricted to customers only, even if it were necessary to plant trees round the course, but that nothing on earth could confine wireless waves to properly licensed receiving apparatus.

“The hon. Member . . . announced that his intention was to make the passage of the Postmaster-General rougher, but he can hardly be satisfied with his performance. If I may say so, he combined all the unpleasantness of boreas with the undulating efficiency of the gentle zephyr.”

The formation of the Board of Governors came in for some hostile criticism, and widely divergent views were expressed. One Member thought that no Board is more likely to give worse results than a committee of experts. Another was an exponent of competition in broadcasting, and instanced America, “where managers sit up of nights with wet towels round their heads thinking of what the public want.” [This may be an attractive amusement in a dry country, but the mere suggestion brings cold shivers to the backbones of Britishers suffering from a wet November and a coal shortage.] While yet another Member suggested that were the scheme for an independent and impartial Board logically sound, then if forsooth the coal industry were nationalised, it should be administered by a body of portrait painters or doctors. There seems, indeed, to have been some confusion between the relative functions of administration and executive management, and a thorough determination to ignore the fact that the Company's staff, other than the Board of Directors, would remain unaltered and that there would consequently be no lack of practical experience. Here history repeats itself, as our older members will remember similar misunderstandings in connexion with the transfer of the telephone service to the State in 1912.

On the question of broadcasting Parliamentary debates, it was hinted that some Members did not realise the horrors of the possibilities. It was suggested that speeches “can very often lose seats as well as win them, and that the result might be to purge the House of a good many Members which would (*sic*) be highly desirable. . . .”

A “tulchan” was defined as “an orphan animal, and they put another skin on it and pass it on to another mother. She smells the hide and it deceives her.” The speaker added “this is a ‘tulchan’ corporation.” [Evidently it was thought that this rose under another name departs from the general rule and does not smell the same.]

In conclusion, we must not overlook the description of certain criticisms on legal phraseology as “a whole bevy or bouquet of mares’ nests,” a phenomenon all knowledge of which the next speaker was most careful to disclaim.

TELEGRAPHIC MEMORABILIA.—(Continued from page 47.)

One other item of interest which accompanied these documents was the wages sheet—a sheet which would make our A.G.D. of to-day shiver as regards its appearance, its utter unsuitability and its general dishevelled mien. It was made out on two telegraph forms, and was probably somewhat ashamed of itself, for was not the highest-paid telegraphist awarded the princely sum of £1 15s. 0d. for his skill, standing alone with five shillings more to his credit than the next rank, which tapered down to twelve shillings and sixpence. Those Good Old Days!

One little very personal note in which I would thank the many friends who have so kindly expressed their generous appreciation of my monthly scribbles in these columns and who have followed me into my retirement with so many good wishes. To my colleagues, also, on the Managing Committee who have made it so easily possible to serve both them and the readers of the *T. and T. Journal* yet some time longer—I know not *how* much longer. In the meantime, A Merry Xmas and the happiest of new years to all.

“If the stars should appear but one night in a thousand, how would men believe and adore!”—Emerson. J. J. T.

THE G.P.O. PLAYERS.

"*Thomas More, an imagined story founded on History. By Ralfe Davies, M.A., Oxon.*" King Georges' Hall, Oct. 29 and 30, 1926.

It is all to the credit of the G.P.O. Players Dramatic Society that, instead of relying on a well-tryed and popular play as a "draw," they undertook, with the aid of Major Hodgson-Bentley, the production of a new drama of serious and poetic character. The choice, we venture to think, was a good one, for "Thomas More" is emphatically one of those thoughtful, interesting, and well-written plays of sustained interest which ought always to be able to obtain a good hearing, but which, under the unfortunate conditions which govern our commercial stage, would please an insufficient number of theatre-going public, mainly out for a couple of hours' light amusement, to ensure a run of fifty or a hundred nights. It is an impressive and moving fragment of history, drawn from an epoch-making period, which passes before our eyes; and although the author disarms any criticism of his historical accuracy by calling the play "an imagined story, founded on history," he keeps fairly close to the excepted facts and deeds of that troubled age. The sincere yet humorous character of More, faithful unto death, is well brought out. The scenes in which he pleads with his loyal but wavering daughter, touchingly played by Miss Kathleen Emery, were admirable. Mr. John Cahill, as More, who with Mr. Jack Scott (Henry Tudor) sustained the chief burden of the evening, was remarkably easy and natural during the second act, and throughout the whole play most successfully depicted the light-hearted gallantry which could meet death with a jest and maintain a brave, humorous bearing amid the lurking treacheries of that grim age. The scene on Tower Hill was solemn and affecting, and the device of dropping the curtain and then raising it again after the sharp wailing cry of More's daughter has signalised the consummation of the tragedy, was dramatically conceived. The brief introduction of the importunate litigant at the beginning of the scene was a skilful touch of light relief. The author seemed to have rather a "down" on the Boleyn family. Anne's father, the Earl of Wiltshire, played in a very spirited manner by Mr. Cyril Leigh, was drawn as a purely comic character, and was somewhat unconvincing. We cannot imagine an imperious Tudor suffering with patience the tone adopted at times by him or his daughter. Anne, played to perfection by Miss Margaret Henniker, who looked and lived the part as conceived by the author, was frankly a shrew. She means to be Queen at all hazards, alternately pleading with and threatening More, but we take leave to doubt whether she would have dared tell him, even in her most Protestant moments, "the King is God!" Nor can we quite imagine that Henry, wavering between orthodoxy and desire, would have stomached her threat, "Wait till I get you home!"

A happy inspiration was the introduction of the mariner, Hythloday, with his suggested acquaintance with Utopia, and his robust devotion. This sympathetic character was played in finished style by Mr. Wilfred Sellars. The jailor, John o' Wood, however, seemed to come from the realms of farce, and the easy manner in which the Tower guards were immobilised and rescues were arranged was reminiscent of the technique of the cinema. In fact the scene in the Bell Tower wavered between the impressive and the comic in a disconcerting manner. The author might, perhaps, plead a precedent for it in Shakespeare, but not, we think, quite validly. It recalled rather Androcles romping with a comic lion in the circus scene of Mr. Shaw's jestingly-earnest play. Mr. Leslie Dawe, however, fully entered into the spirit of his part.

We are anxious, however, not to convey by these few criticisms an impression that the passages referred to seriously marred a play of great promise and most efficiently acted. Mr. Cahill, as we have indicated, deserves a high meed of praise, and his laurels were shared by Mr. Scott as Henry VIII, who conveyed admirably the unstable King's changes from generosity to suspicion, from fondness to tyranny, from weak subjection to passion to hasty and ill-considered masterhood. Mr. Alfred Doust interpreted the well-drawn character of Cromwell with wonderful effect, and if

at first it seemed cast on somewhat melodramatic lines, it speedily developed into a convincing and purposeful remorselessness. The lesser characters were well sketched in. Mistress More (Miss Cowan), Margaret Gigs (Miss Howe), Latimer (Mr. Gerald Storr), and the Vicar of Croydon (Mr. Hudson), all were good. "All is dark to me," said the latter, when pressed to take the new oath. "It is darker in the Tower" he was reminded. We cannot speak too highly of the piquant and passionate Queen of Miss Henniker, whilst the sympathetic tenderness of Miss Emery as More's daughter ensured a charming rendering of the part.

It remains to be said that the play was most artistically produced by Major Hodgson-Bentley, and that an interesting programme of music was provided by an orchestra under the direction of Mr. Will Harrison.

CORRESPONDENCE.

AUTOMATICS IN ORIENTAL COUNTRIES.

TO THE EDITOR OF "THE TELEGRAPH AND TELEPHONE JOURNAL."

WITH reference to the concluding paragraph of Telephone Notes, published on page 18 of your October issue, the statements made by the Special Correspondent of the *Electrical Review* which you quote were also made at greater length in an article in the *Times of India*. The statements have been most emphatically contradicted and, in writing to the *Times of India* to this effect, I was able to quote the authority of the High Commissioner for India for the statement that the intention attributed to the Government of India was entirely without foundation.—Yours faithfully,

Oct. 30, 1926. H. E. POWELL JONES, Secretary.
The Telephone Development Association.

TO THE EDITOR OF "THE TELEGRAPH AND TELEPHONE JOURNAL."

I WAS interested in the last paragraph of the Telephone Notes of your October issue, where the question of "Automatics" in Oriental countries is discussed.

I note that the Sub-Editor of the Notes is "inclined to believe that the automatic is the ideal telephone exchange for Oriental countries, where many languages are used by the subscribers." I, also, was of this opinion when I was in England, but have changed my mind since coming East.

In polyglot countries there is generally a supply of candidates available who understand several languages sufficiently well to operate the majority of telephone calls which they may be required to handle. Palestine has, in addition to the three official languages, English, Arabic, and Hebrew, several other languages in common use, such as French, Greek, Spanish, Italian, German, Russian, Armenian, and Roumanian. This is a formidable list but a caller in any of these languages can be served without much trouble in Jerusalem Exchange, where each of the telephonists speaks at least three languages well, and can deal with simple demands for numbers passed in five or six different tongues. In the few cases of language difficulty the caller is put into communication with the Supervisor who, if unable herself to deal with the call, is generally able to select a telephonist to whom the language of the caller is familiar.

When it is considered that it is only necessary to memorise certain standard expressions and the numerals of the other languages to be able to deal with the majority of calls, it will be appreciated that the problem is simpler than would, at first sight, appear.

I agree with the correspondent referred to in the Notes, that savings effected by reducing the amount of comparatively cheap telephonist labour would be more than counterbalanced by the employment of trained mechanics whom it would be necessary to engage for a number of years, and who would require high rates of pay to tempt them from their home countries.

Further, the Eastern temperament which causes subscribers to change their minds regarding the order in which they want calls, while actually passing the numbers to the operators, would be responsible for alarming "wrong number" percentages on a system where this trouble appears to be surprisingly frequent on even the "best regulated exchanges." When I recollect the state into which many English subscribers have worked themselves when, perhaps, they have been held up on a faulty auto-trunk or, in place of an expected "ringing tone," hear a "tone" somewhat similar to the sound of a hen clucking, I extend my sympathy to any "Complaints" officer in an Oriental country blessed with automatics, where the "language" problem must indeed be terrific!—Yours sincerely,

General Post Office, Jerusalem. LESLIE M. SMITH,
Oct. 27, 1926. Superintendent of Telephones, Palestine.

PROGRESS OF THE TELEPHONE SYSTEM.

THE total number of stations working at Sept. 30, 1926, was 1,444,302, a net increase of 9,685 over the total at the end of the previous month. During the first six months of the current financial year new telephone stations numbered 108,256 and cessations 54,107, resulting in a net addition of 54,149 stations.

The table below shows the number of stations working at Sept. 30 last in London, England and Wales, excluding London, Scotland and Northern Ireland.

| | No. of Stations at Sept. 30, 1926. |
|--------------------------------------|---------------------------------------|
| London | 507,127 |
| England and Wales (excluding London) | 782,856 |
| Scotland | 135,502 |
| Northern Ireland | 18,817 |

The growth for the month of September is summarised as follows :—

| Telephone Stations— | London. | Provinces. |
|---|---------|------------|
| Total at Sept. 30 | 507,127 | 937,175 |
| Net increase for month | 3,569 | 6,116 |
| Residence Rate Installations— | | |
| Total | 104,961 | 174,742 |
| Net increase | 1,387 | 2,036 |
| Exchanges— | | |
| Total | 111 | 3,997 |
| Net increase | 1 | 17 |
| Call Office Stations— | | |
| Total | 4,592 | 16,428 |
| Net increase | 13 | 100 |
| Kiosks— | | |
| Total | 345 | 2,048 |
| Net increase | 17 | 66 |
| New exchanges opened under Rural Development Scheme— | | |
| Total | — | 962 |
| Net increase | — | 14 |
| Rural Party Lines— | | |
| Total | — | 9,941 |
| Net increase | — | 16 |
| Rural Railway Stations connected with Exchange System— | | |
| Total | — | 787 |
| Net increase | — | 4 |

The number of inland trunk calls dealt with during August—the latest statistics available—was 7,495,096, an increase of 701,576 or 10.3% over the figure for the corresponding month last year.

Calls made to the Continent during August numbered 21,024, and from the Continent 23,564, representing increases of 4,505 and 3,004 respectively over August last year.

Further progress was made during the month of October with the development of the local exchange system. New Exchanges opened included the following :—

LONDON—Battersea, Reliance, Rodney.

PROVINCES—Farnworth.

And among the more important exchanges extended were :—

LONDON—Brixton, Croydon, Hounslow, New Cross, Riverside, Romford, Sutton.

PROVINCES—Arbroath, Bournemouth, Broadstairs, Mansfield, Nelson, Northwood, Rusholme, Trafford Park, Wallasey, Watford.

During the month the following additions to the main underground system were completed and brought into use :—

Manchester—Burnley,

Sheffield—Worksop (section of Sheffield—Mansfield cable),

while 73 new overhead trunk circuits were completed, and 86 additional circuits were provided by means of spare wires in underground cables.

TELEGRAPHS AND TELEPHONES IN GERMANY.

THERE was not much progress in telegraphic traffic and a thorough revision of the whole system is being undertaken with a view to utilising the latest technical improvements and to ensuring profitable working. The average monthly number of telegrams sent during November, December and January was 2,700,000.

The telegraphic communication between Germany and several foreign countries has been extended. Thus at the end of October, 1925, a direct wire between Berlin and Moscow was put into service and in October, 1926, a direct connection with the United States will again be established by the laying of the cable between Emden and the Azores.

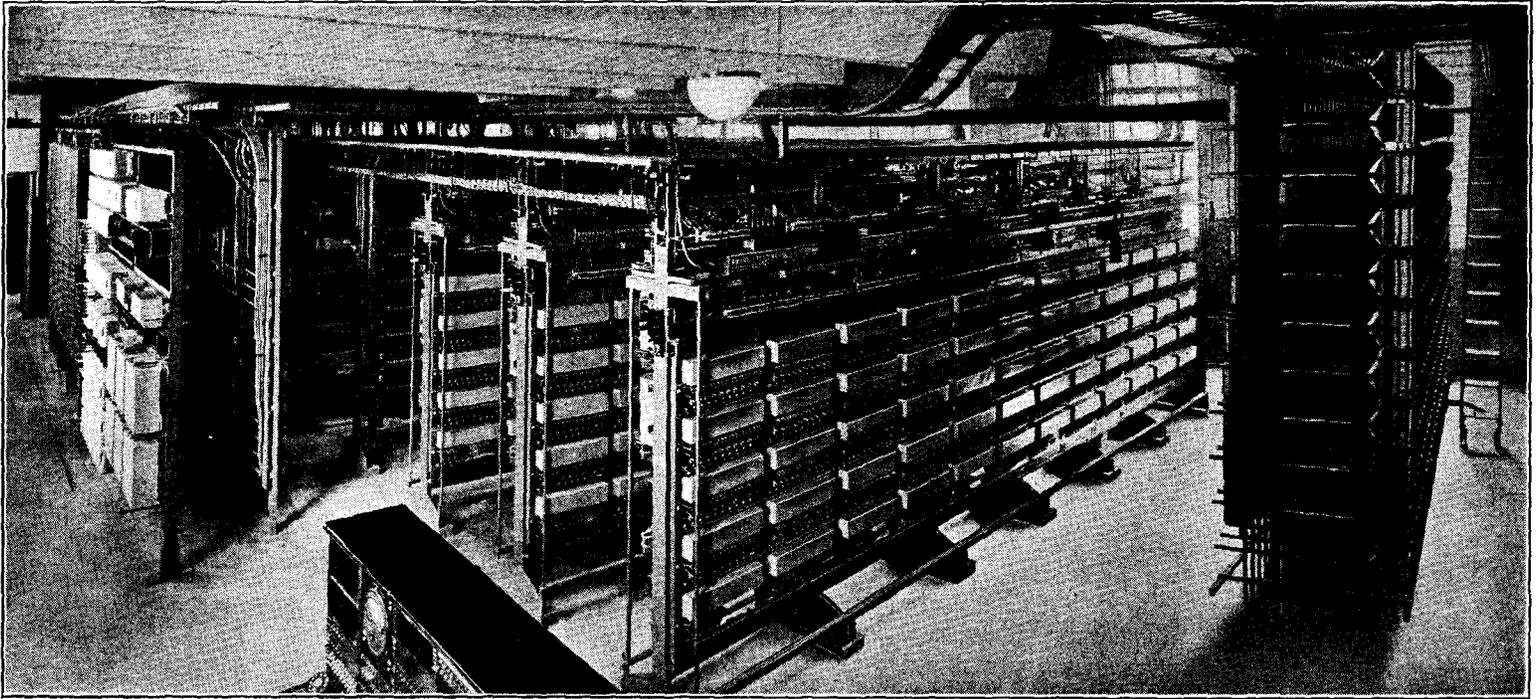
The chief stations for long-distance wireless telegraphy, Koenigswusterhausen and Nauen, are being constantly improved. There is regular connection with the United States, the Argentine and Java, and messages can be transmitted to, though not received from, China, Japan and Africa. The main receiving station is at Zehlendorf, a suburb of Berlin.

The telephone is becoming an increasingly serious rival of the telegraph, and is expanding. The demand for new connections is very heavy, and in spite of every effort having been made to satisfy applicants, 29,000 are still on the waiting-list. At the end of January, 1926, the number of call stations, main and subsidiary connections amounted to 2,500,000, which represents an increase of 11.2% compared with the year before; by the end of March another 50,000 had been added. Progress is being made with the installation of the telephone in trains.

In March, 1926, direct telephonic communication between London and Berlin was opened; since 1st July a continuous day and night service has been in operation.

A rapid development is noticeable in the adoption of broadcasting, the number of subscribers having passed the first million in December, and amounting to 1,205,310 on April 1, 1926. There are twenty sending stations in operation, and the whole system has been reorganised and placed on a new basis by the creation of the *Reichsrundfunkgesellschaft*, formed by the Reich in conjunction with a great majority of the broadcasting companies in Germany. It is not known what proportion of the capital was furnished by the Reich, but it has reserved for itself 51% of the votes.

On Jan. 31, 1926, the German Ministry of Posts and Telegraphs employed 251,307 officials and 41,829 non-official permanent personnel, included in the latter being 31,187 telegraph workmen. At the same date, 28,121 persons were employed as substitutes for those on leave and ill, and as supernumeraries. By the end of March there had been a reduction of 2,245 in staff, compared with December, 1925. During the year 2,700 new dwellings were built for the personnel and 1,000 delicate children of postal officials cared for.—*Department of Overseas Trade. Report on Economic and Financial Condition of Germany, 1925-6.*



COVENTRY AUTOMATIC EXCHANGE.—GENERAL VIEW.

COVENTRY'S NEW AUTOMATIC TELEPHONE SYSTEM.

THE City of the Three Spires is one of England's oldest towns and contains many fine architectural examples dating back to the XVth Century. Industrially Coventry has had many ups and downs. Before the factory system became general it was famous for its watchmaking and silk manufacture. These were carried on in the houses but have now become practically extinct. The City then became the centre of the cycle making industry and since the boom in cycles and the advent of the motor-car it has adapted itself to the manufacture of these modern commodities to such a degree that "made in Coventry" is now the hall-mark of British motor-car quality in the Empire.

Coventry is not the smoky type of manufacturing town, a general use of electric power making it a very modern industrial city. The telephone system, however, was out of date, the economies due to the war and the difficult times immediately following having made it necessary for Coventry to persevere with a worn-out and obsolete plant which was of the magneto type.

The installation of the most up-to-date automatic system is therefore a very welcome innovation to the subscribers. Coventry is further the possessor of a thriving telephone industry in having the Peel-Conner Telephone Works of the General Electric Company situated in one of the suburbs. This firm have supplied and installed the whole of the equipment in the new Telephone Exchanges. They removed their manufacturing shops from Manchester to Coventry five years ago and now employ 3,500 workpeople in the best equipped and most up-to-date works of its kind in the kingdom.

The change over from the old to the new system was effected at 2.0 p.m. on Saturday, Nov. 20. The formal opening of the new Post Office, complete with the new telephone exchange, was the occasion of a civic ceremony afterwards.

The Coventry Telephone area now contains two automatic exchanges—the central or main exchange at the head Post Office in Hertford Street, and a satellite at Foleshill. Ultimately there will be another satellite at Walsgrave.

Equipment is installed at the central exchange for 3,300 lines and at Foleshill for 700 lines, and provision is made for expansion within the area to 8,000 lines.

The system employed is the Strowger step-by-step, embodying the latest features for provincial non-director systems.

All subscribers have now four digit numbers, the Coventry group numbers ranging from 2000 to 5299, and those at Foleshill from 8000 to 8699.

Thirty-three of the Standard P.O. type automatic line units are installed. These units carry 100 rotary line switches on one side and the necessary

number of final selectors for traffic into that hundred-line group on the other side. Six selector units with capacity for 240 group selectors each are provided to carry the 1st and 2nd selectors, 3 units being allotted for each rank of switches. Two of the 1st selector units carry the switches dealing with Foleshill and Coventry inter-exchange and local calls, and the third 1st Selector unit is equipped with the switches on dial-in junctions. These dial-in junctions are from towns as far distant as Derby and Chester and the operators in these towns obtain the Coventry subscribers direct.

There is a seven-bay subscriber's meter rack—one bay for traffic meters—and an S.A.R. and I.D.F. for apparatus in connection with the manual board and miscellaneous automatic circuits. The equipment at the Central Exchange includes a 19-position manual board for dealing with calls to and from other areas. Similar to the C.B. No. 10 type, this board consists of two-panel one-position sections, the positions being allocated as follows:—

- 1-2—Keysender B.
- 3-6—Trunks
- 7-8—Jack-ended junctions.
- 9-19—Trunk record.

A six-position monitor's desk is provided for dealing with enquiries, complaints and miscellaneous services.

Subscribers dialling "0" are routed to the trunk record positions, and the following two-digit dialling codes are provided:—

- 90.—Phonograms (telegrams by 'phone).
- 91.—Enquiries and complaints—to Monitor's desk.
- 92.—Service P.B.X. calls.
- 93.—Calls for rural party lines which require special ringing.
- 99.—Calls for test clerk by faultsmen.

Rotary preselectors with a normal position are used with graded outlets to the first selectors.

The keysender equipment presents several interesting features. A single strip of digit keys is used in place of one strip per digit required, which has been fitted on previous equipments. Any call which may involve more work by the B operator than the actual setting up of the number is immediately transferred to another position; enabling the service on these Birmingham junctions to be very fast and efficient.

The power plant is situated in the basement of the building, duplicate motor generators, batteries and ringing machines being provided. Two 25-cell chloride batteries with a box capacity of 1,719 amp. hours are installed.

Prior to the opening the P.O. officers made house-to-house visits to demonstrate the working of the subscribers' instruments and the meaning of the various tones, while a demonstration set installed in the head Post Office aroused considerable public interest.

MR. ALFRED MAGNALL.

THE British telephone world has lost one of its best-known figures in the official passing of Mr. Magnall, who retired from the Service on Oct. 17. His career is indeed remarkable and exemplifies the power of grit and character in the achievement of success.

Mr. Magnall commenced his service with the National Telephone Company in 1883 and rose rapidly to the post of Inspector and then to District Manager, Warrington. His engineering abilities were somewhat wasted in this capacity and he was very shortly promoted to the position of Engineer, Manchester, to succeed Mr. Watts, who had been transferred to the Headquarters Staff. Mr. Magnall entered on his new duties with an enthusiasm which



MR. A. E. MAGNALL.

[Photo by Jerome Ltd., Manchester.]

has never diminished. During his tenure of office he delivered many instructive and valuable lectures to engineering societies. He did much pioneer work in the development of external plant construction—one notable example being the investigations into the tension on aerial wires.

In 1911 Mr. Magnall was responsible for the layout of the new telephone system in Constantinople, and it is interesting to know that his forecasts have been fully justified in the years that have elapsed. Incidentally Mr. Magnall brought back with him a most remarkable and interesting series of views which has, on many occasions, served to illustrate his lecture on the Orient.

With the transfer of the telephones to the State, Mr. Magnall joined the South Lancashire District as Sectional Engineer, and

was responsible for the administration of the Manchester West Section. Mr. Magnall has often told us that for some time he did not love the Post Office, but that later he came to realise that there was wisdom in our madness. Be that as it may, we all learned to revere and to respect him. His transparent, honest, and absolute straightness in all his dealings with his chiefs and his subordinates was very soon recognised. It would, indeed, be difficult to differentiate between the regard which he won from his former staff and that which he won from those with whom he first came in contact in 1912.

On Oct. 18 1926 a meeting took place to express the feelings of every one towards him. Mr. W. J. Medlyn occupied the Chair, and in one of his delightful little speeches, gave a *resumé* of Mr. Magnall's career. After a number of tributes from every section of the staff of the Post Office Engineering Department and from the District Manager's staff voiced by Mr. Elliott, the Chairman called upon Mr. T. E. Herbert to make the presentation which owing to Mr. Magnall's uncertain plans had perforce to take the form of a wallet of treasury notes to a very considerable sum. Mr. Herbert said that he had been proud of a friendship extending over 30 years, and paid tribute to Mr. Magnall's kindly heart and his remarkably vivid personality. A large contingent of the Withington Bowling Club attended to honour their former President, and in his reply Mr. Magnall remarked that his was the third occasion on which the Club had honoured him. First in 1910 when they had presented him with a gold watch and chain. In 1923 when he was made a Honorary Member of the Club, and thirdly on the present occasion.

Mr. Magnall was deeply and visibly affected by the tributes paid to him and by the wonderful atmosphere of enthusiastic goodwill so eminently manifested. He had a kindly word for all his old staff, and finished with an old-fashioned but none the less sincere "God bless you."

Nov. 15 was yet another remarkable day for our old friend. He delivered a most interesting lecture before the South Lancashire Centre of the Institution of Post Office Electrical Engineers entitled "Reminiscences." This dealt with the early days of telephone engineering, remarkable incidents, accidents, defects, his Constantinople experiences, and many other matters. The lecture was interesting and valuable, and was very fully illustrated by a selection from his large collection of lantern slides, the bulk of which he has been good enough to present to the Centre.

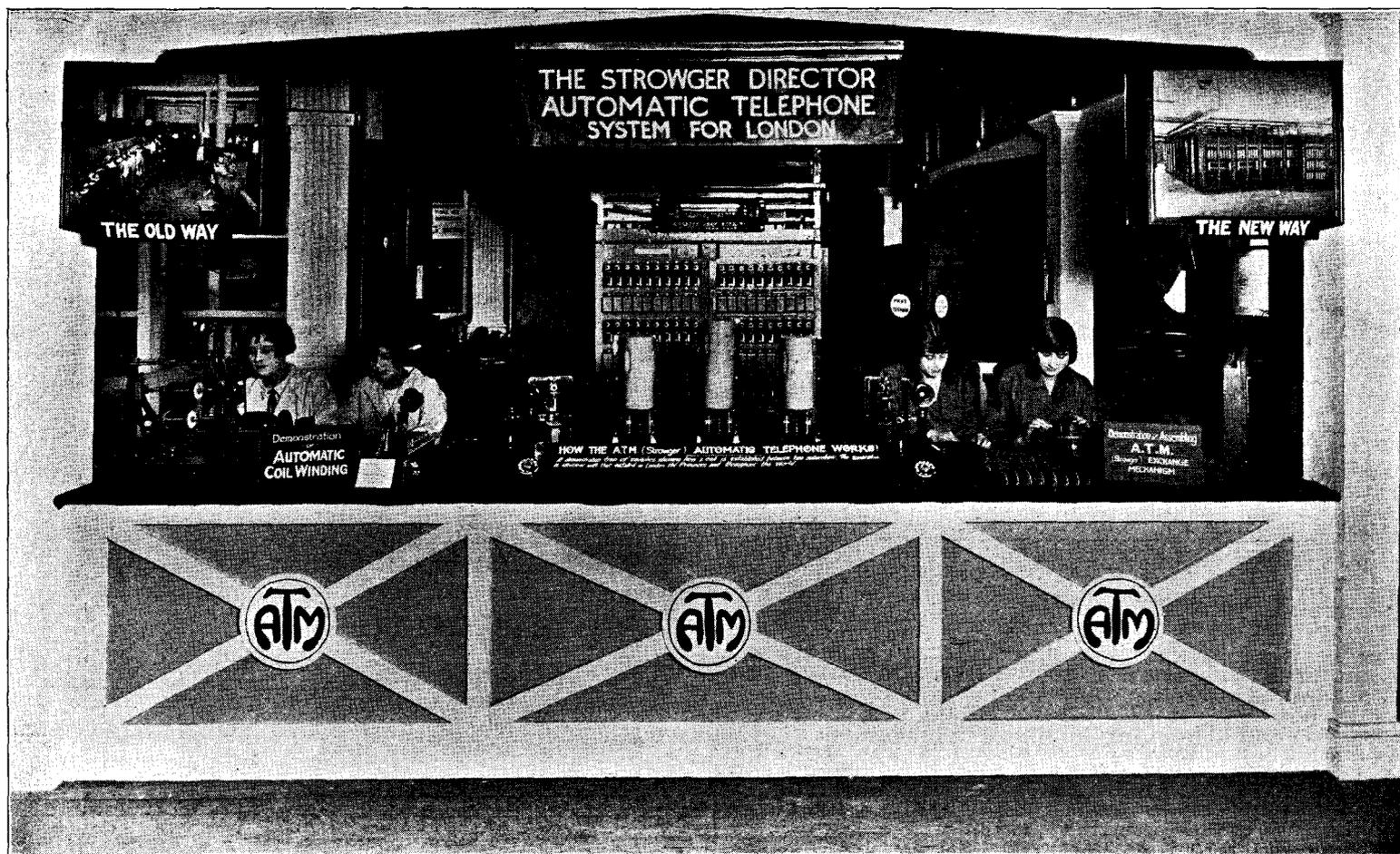
The vote of thanks was proposed by an old friend, Mr. J. M. Shackleton, and was seconded by Mr. A. E. White, his former deputy.

Little remains to be said of our friend; we shall miss his kindly cheery personality and his vast knowledge of the Manchester plant, but we wish him every happiness in his well-earned retirement. It is understood that he contemplates a long trip abroad with the object of visiting his son in Central America. His other son is well known to most of us, since he is on the Secretary's Traffic Staff in London. His daughter is married to a Manchester Post Office official, and it is, therefore, clear that this indirect link with the Post Office and its people will still survive the severance of his official connexion with the South Lancashire District. T. E. H.

STERLING TELEPHONE AND ELECTRIC CO.

The Sterling Telephone & Electric Co. inform us that they have acquired the Phonophone business of the Radio Phonophone & Electricals Ltd. (in liquidation) and that they will welcome enquiries for complete telephones and spare parts.

They are offering a special service for spare parts to present users but desire that samples should be sent with all enquiries for spares.



LIVERPOOL CIVIC WEEK EXHIBITION.

THE above is a photograph of one of the exhibits of the Automatic Telephone Manufacturing Co., Ltd., dealing more particularly with the Strowger Director System, showing how the system works and giving a demonstration of automatic coil winding and the assembling of A.T.M. exchange mechanism. Other exhibits showed such widely different electrical appliances as kitchen outfits, railway signalling, telegraph apparatus, mining telephone systems, and fire alarms.

So diverse is the character of this exhibit, entirely representative of local industry, that Automatic Telephone Manufacturing Company's Stand has been the centre of attraction to the vast crowds who have daily passed through the Exhibition Building.

30 years. The invention of photo-electric cells, instantaneous in their action, aroused renewed interest in the problem, and for the past four years he had devoted the whole of his attention to its solution. The first public demonstration of his process was given in 1925; since then his apparatus had been entirely remodelled, and the clearness of the images had been greatly improved, but although much more sharp and distinct, they still remained mere black and white effects, without detail and without gradation of light and shade. He made many attempts to improve the light sensitive cell, including the construction of a cell from "visual purple" out of a human eye. This cell when first constructed, gave an appreciable reaction to light. He was not at liberty to give technical details of the device finally developed, but towards the end of 1925 the difficulties were successfully overcome, and the images of various objects, including the living human face, were transmitted with half-tones and details. The images were at that time very defective, comparable with the earliest kinematographs, but the defects, chiefly due to mechanical and electrical imperfections, were being steadily eliminated, and he expected to place on the market a commercial machine within the next twelve months.—*The Electrical Review*.

* * * *

TELEPHONE NOTES.

THE first of a series of "popular talks" in aid of King Edward's Hospital Fund for London, was given at the Royal Institute of British Architects on Thursday last week by Mr. J. L. Baird, on "Seeing by Wireless." Sir Richard Gregory, D.Sc., occupied the chair, and expressed the hope that the elementary apparatus which Mr. Baird had evolved for effecting television would develop into a practical form more rapidly than the telephone had done.

The Lecturer remarked that seeing at a distance was really no more strange than hearing by telephone, with or without wires. After explaining how sound waves were converted into fluctuating electric currents, and reconverted into sound waves at the receiving station, he said that television involved very much the same process; all that passed through the wires or the ether was a fluctuating current of electricity, in either case. Mr. Baird showed a photograph of an image seen on the screen of the first televisor that he had made, and proceeded to review the history of the subject, pointing out that selenium was too sluggish in its reaction to light, and too insensitive, to be of service in television, which consequently remained at a stand-still for

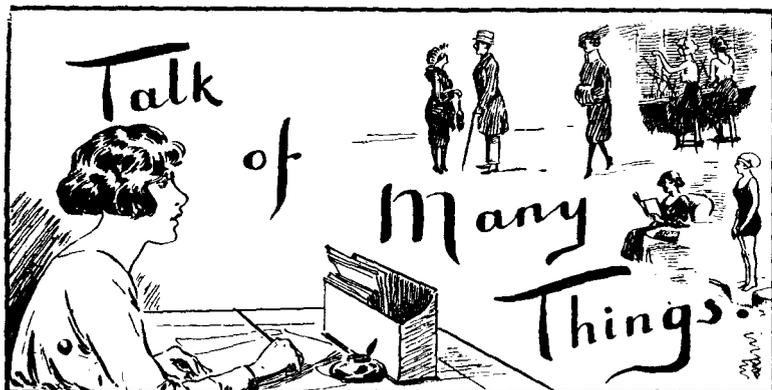
The Electrical Review states that after the last Ministerial Council it was announced that automatic telephones would be adopted for Paris. The Secretariat-General of Posts, Telegraphs and Telephones now announces that, in conformity with a report of M. Bokanowski, the Government has decided that work in connection with the conversion shall be begun immediately. The first part of the programmed includes the supply of apparatus to serve 40,000 subscribers; five new buildings have already been constructed, and it is expected that this first section will be inaugurated in 1929. The work will be carried on until the whole of the Paris telephone system has been transformed, which will take ten years. The new apparatus will be constructed entirely in France and installed by French workers.

* * * *

The Government Telegraph and Telephone Authorities contemplate the erection of a radio-telephone transmitter which will be at the disposal of business people who wish to make announcements, at a moderate tariff. Tests have been made from Scheveningen Harbour, according to *World Radio*, from which it appears that with a 3-kw. aerial energy sufficient power can be generated to reach all parts of Holland without disturbing other stations on a 1,950-metre wave-length. The tests are to be resumed at the beginning of November.

H. J. E. S.

WE TELEPHONISTS



Ann Hath Her Way.

My lady readers, during their short life, will doubtless have forgotten more about bazaars than I, who am grey and full of years, ever knew. Ladies seem possessed of a particular attitude of mind towards bazaars. They appear to accept them as one of the natural and inevitable phenomena of life, like cold meat on Monday and the drop in bonus in September. Just as no Spring would be normal without sales, so no Winter is quite proper without bazaars. It is useless, therefore, for me to expect sympathy when I tell of a catastrophe which recently befell me. On the contrary, I anticipate nothing but derision, although there may perchance be one endowed with a soft sweet nature who will allow her eye to be dimmed momentarily with a tear of pity.

It all happened as the result of a trustful appeal made by a sister, and the fact that I succumbed is all the more remarkable since I was her brother. She had apparently bought largely at a bazaar and someone had to be found to carry home the multitude of parcels. What more natural, therefore, than that she should turn to her brother for help? For my part, I could think of nothing more unnatural, but if you had been subjected to the same persistent and artful pleading you would have fallen even as I. She has a way with her too, and anyhow I have always endeavoured to be kind to sisters and other dumb creatures.

Accordingly I presented myself at the door of the hall in which the bazaar was being held and I was met by a man who demanded sixpence admission. Now it was the day before pay-day, and economy was thus absolutely imperative—need I say more? I explained airily that I had merely come to see my sister and to fetch some parcels. "I'm not stopping a moment, you know," I said. He passed me in with a Monna Lisa smile. Once inside I felt like Daniel—only the lions didn't bite *him*. I was besieged by young persons in pink with raffle tickets for pinafores and pineapples, perambulators and pincushions. It was only with difficulty that I extricated myself from the mob and escaped with my cash balance intact. I gazed round anxiously for the siren who had lured me on to the rocks of financial destruction. There she was in the far distance at the top end of the hall and on each side of me were stalls with importunate saleswomen lusting for my wealth. I glanced behind and beheld reinforcements of rafflers approaching at great speed. I judged it expedient to move rapidly. I ran the gauntlet, trampling many under foot and dislodging at least one stall. My misguided relative had charge of a men's stall, full of startling ties, shocking socks, anaemic gaspers and all such things as long-suffering men have thrust upon them for the good of the cause. "About those parcels," I began. "Oh, I can't leave the stall yet, you must wait—what are you going to buy?" "Look here," I said, "I'm not going to buy anything. I didn't want to come to your bazaar: I only came to collect your parcels like a jolly old beast of burden." She appeared to agree about the beast and then she commenced to appeal to what she called my generous instincts and my better nature. "I tell you I'm broke," I said desperately, and in a perspiration of fear. "Oh, I'll trust you till to-morrow," she said. What could I do? I dare not move from her stall, for my credit wouldn't run elsewhere and flight was impossible without her protective influence. Thus I mortgaged my prospective pay sadly and heavily. The stuff I was persuaded to buy—but then, you know, she has a way with her, and I was badly frayed. Eventually I escaped into the cool night air loaded with parcels of the most inconvenient shape and size. As I departed the man at the door chuckled hoarsely.

PERCY FLAGE.

A Greeting from the Telephone Staff at Benenden Sanatorium.

Hallo, Everybody,

We are calling up to say how grateful we all are to those friends who so kindly sent us gifts and good wishes on Sept. 5. We hope all enjoyed their visit to Benenden, but think really the pleasure was very much ours, as it



BENENDEN.

was delightful to see so many colleagues interested in our welfare. Glad to say we are making good and our thanks are due to the P.O.S.S. and the Doctors, Matron and Staff, all of whom are exceptionally kind.

We hope, before we leave, we may again have the pleasure of seeing you all.

Closing down now,

Good-bye, everybody,

Good-bye.

Sydenham Exchange.

A Social Evening was held at the Hamilton Hall on Oct. 26, 1926, in aid of the Kirkdale Lending Library. The organisers were extremely fortunate in obtaining the personal assistance of Mr. Raison, who, as M.C., ministered so well to the comfort and needs of all present that the success of the evening was assured.

Musical items were arranged and excellent talent displayed. Songs were rendered by the Misses Cleave, Mash, Arnott, Evans, Lewis and Mr. C. Arnott, all of which were greatly appreciated by the large audience.

Miss Brereton showed herself to be a real artist in her solo dance, and the Staff at Sydenham hope to see more of her exceptional talent.

The Sketch entitled "The Society for Worn-out Wives," written, produced and performed entirely by the Sydenham staff, was a huge success. The principal characters were taken by the Misses Arnott, Hammond, Evans, Payne, Songhurst and Whordwell, all of whom possess considerable stage ability. The "Moonshine Quartette," by the Misses Mash, Bennett, Lewis and Whorwell was well done, while the "Darkies" and the "La Pim Posh Band," performed by the Misses Mathews, Lewis, Hollands, Rowland, Masters, Martin, W. Smith, White, Whitney and Beauchamp, was equally creditable.

Thanks to the hard work put in by Miss Mash and Miss Songhurst the Social came up to expectations financially, a gain of over £5 resulting. One much needed bookcase can now be purchased for the Library.

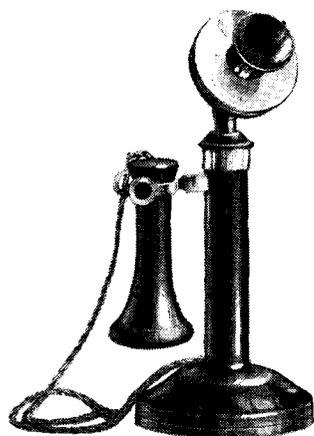
Those interested in the Library take this opportunity of thanking Miss Bowley for the interest and co-operation which she has given in the organisation of the Social.

G. M. T.

Toll Exchange.

The Annual Prize Distribution and Concert, arranged by the Renown Swimming Club, was held in the Toll Exchange Dining Room on Wednesday, Oct. 20.

Mr. Rooney, Service Superintendent, presided, assisted by Mr. Donovan, and a large gathering enjoyed the interesting items provided. A hearty welcome was extended to Miss Epps and Miss Pond (who had left Toll during



T M C

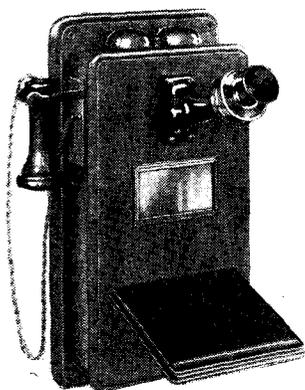
Telephone Apparatus



Recent extensions to the modern plant installed in the Dulwich Works of The Telephone Manufacturing Co. Ltd., have augmented their capacity to produce all descriptions of telephone apparatus.

Enquiries will, therefore, be welcomed for the supply of complete instruments or parts, for delivery in any part of the World.

The standards of efficiency and finish are guaranteed to be equal to those specified by the British Post Office.



The Telephone Manufacturing Company Limited

Hollingsworth Works, West Dulwich
LONDON, S.E.21

Telephone : Sydenham 2460-1.

Codes : Bentley's, A.B.C., 6th Ed.

Telegrams : Bubastis, Dulcrox, London.

Contractors to

British and Colonial Post Offices; Admiralty;
War Office; Air Ministry; India Office; and
Telephone Companies throughout the World.

Makers of the "Laryngaphone" Noise-proof Telephone.

A Book you Need

If you wish to make progress with your work, to pass such exams. as the City and Guilds, and later, become a Superintendent, you should get the new edition of this useful book. It will be of the greatest assistance and simplify your difficulties.

Questions & Solutions IN Telegraphy & Telephony

By H. P. FEW.

This is the sixth edition, enlarged to 350 pages,
with 233 illustrations.

Being Solutions to the Questions Set by the City and Guilds of London Institute in Grade I. of Telegraphy and Telephony during the years 1904 to 1919, and 1925.

Together with Written and Oral Questions Set at Departmental Examination for Overseers and Assistant Superintendents.

This excellent work has become exceedingly popular and is recognised as a standard manual for all students of these subjects. Enlarged and carefully revised, it is now offered at

6/6 net.

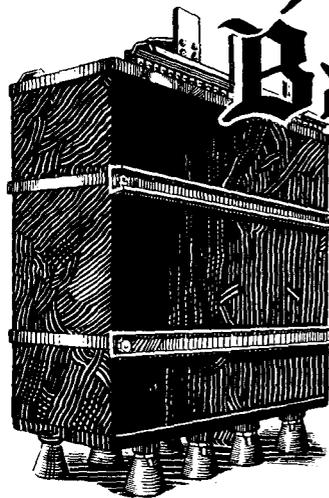
Or post free 6/11 to all parts of the world.

S. RENTELL & CO. LTD.

37, MAIDEN LANE, LONDON, W.C.2.

Chloride Batteries

for
Telephone
Exchanges



SILENT working and absolutely steady voltage are the characteristic features of Chloride Batteries in Telephone Service.

All important developments of modern storage battery practice are incorporated in Chloride Batteries.

Chloride Batteries are in use in the largest Automatic Telephone Exchanges in this country.

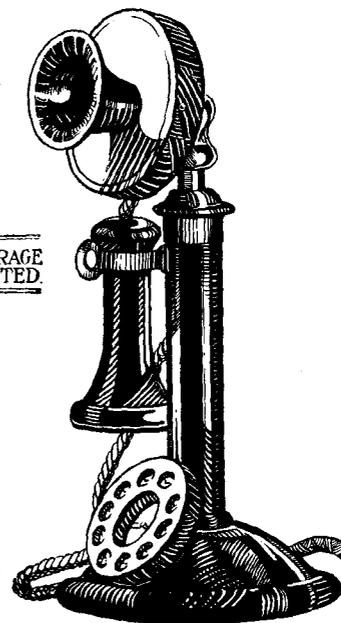
THE **Chloride** ELECTRICAL STORAGE
COMPANY LIMITED

CLIFTON JUNCTION 137 VICTORIA ST.,
Near MANCHESTER LONDON, S.W. 1

Bombay, Calcutta, Sydney, Cape Town, etc.

MAKERS OF THE EXIDE BATTERY.

THE LARGEST BATTERY WORKS
IN THE BRITISH EMPIRE.



Use Chloride Batteries for House Lighting.

the year). The Chief Supervisor, Miss Bailey, distributed prizes to the following successful swimmers:

| | |
|-----------------------------|---|
| Club 100 yards Championship | 1. Miss Sutton. |
| | 2. .. Northwood. |
| Diving Championship | 1. Miss Cowper. |
| | 2. .. Salter. |
| | 3. .. King. |
| Learners' Race | Miss McKlow. |
| Club Handicap | 1. Miss Woolcott. |
| | 2. .. Saunders. |
| | 3. .. King. |
| Old Clothes Race | Miss Salter. |
| | Funniest—Miss McKelvie. |
| Glove Race | 1. Miss Woolcott. |
| | 2. .. Cleall. |
| Fancy Race—Water Derby | (Sergeant Murphy—i.e., Misses Saunders and King. |

after which Miss D. A. Davies presented Miss Bailey with a bouquet of scarlet carnations. A presentation was also made to Miss Cowper, the Secretary of the Club, "as a small token of appreciation and regard from the Committee." In a few suitable words of thanks, Miss Cowper referred to the loyal support she had received, and warmly thanked the members, artists and friends who had so kindly given their services.

The Concert—as on previous occasions—proved both entertaining and amusing, and the audience responded with enthusiasm, frequently calling for encores. The programme included—

| | |
|---------------------|---|
| Pianoforte Solos by | Miss Warren. |
| Songs | Misses Bateman and Bowen, Messrs. Harrison, Collins and Roberts. |
| Humorous Songs | Miss Peacock, Messrs. Willis, Birch and Waight. |

The Misses Allan and King were able accompanists. The concluding sketch—"A Tragedy"—with the Misses McKelvie and Pearce, and Messrs. Willis, Birch and Waight in the Caste, scored an instant success. Miss Pearce, as Ermytrude, the maid, played admirably, and was received with roars of laughter.

Refreshments were prepared and served by the Committee, whose well organised arrangements largely contributed towards the success of a most enjoyable evening.

A. G. T.

1630.

If you've never heard tell of a Sub who can yell
Like the siren that scares Auntie Cleo,
You're in for a treat if you ever should meet
A sub whom we call 1630!
If his number's engaged, he gets madly enraged
And hurls wild abuse at the system—
He blows us sky-high if told "No reply"
They're waiting for him—or he's missed 'em!
If he e'er has to wait, he gets very irate,
"My business is ruined," he reckoned;
Sympathetic we feel, when his chance of a deal
Is missed by the eighth of a second.
Still it cheers us to know that he isn't our foe,
Tho' a tiger he seems in embree-o.
For his curses are meant with most kindly intent,
So here's to profane 1630.

EXCHANGE.

Extract from a Letter from One of the Staff at — Exchange.

"I am sorry I cannot come to the Exchange to-day. It's because I have still got the bilious attack which you sent me home with yesterday."

Mr. Norman Vennar, in the November *London Soroptomist*, writes that he has nothing but praise for the telephone girl, and "her extreme courtesy, great kindness, and really miraculous forbearance." "Most people," he says, "seem to treat the telephone as a personal enemy and the telephone girl as a malignant fury. I have never known why."

Three cheers for Mr. Vennar,
Who's not as other men are.
Telephonists he praises,
In free and flowing phrases,
Stating—his diction pure is—
They're not malignant furies.

But with forbearance kindly,
Treat others' failings blindly.
And have a subtle brain, too,
Which males can ne'er attain to.
Hats off to Mr. Vennar,
Who's not as other men are.

Contributions to this column should be addressed: THE EDITRESS,
"Talk of Many Things," *Telegraph and Telephone Journal*, Secretary's Office,
G.P.O. (North), London, E.C.

GOVERNORS OF THE NEW B.B.C.

THE Prime Minister proposes to recommend the following for appointment by the Crown as the original Governors of the British Broadcasting Corporation, which will control broadcasting in the British Isles from Jan. 1 next, viz. :—

The Earl of Clarendon (chairman),
Lord Gainford (vice-chairman),
Sir Gordon Nairne,
Mr. Montague Rendall,
Mrs. Phillip Snowden.

Lord Clarendon, who is 49 years of age, is Under-Secretary for Dominion Affairs, and it is understood that immediately the Imperial Conference has concluded he will give up that position. He has been Captain of the Gentlemen-at-Arms and Conservative Whip in the Lords.

Lord Gainford, of Headlam Hall, Gainford, Darlington, is well known in the North as vice-chairman of Pease and Partners (Ltd.), and a director of other colliery companies. He is chairman of the present British Broadcasting Company. Formerly Mr. J. A. Pease, he has held various official positions, including those of Postmaster-General and President of the Board of Education.

Mrs. Philip Snowden, the only woman on the Corporation, is well known as a publicist, and was formerly vice-president of the National Union Women's Suffrage Society. She is an ardent worker in the cause of temperance, and has given much time to the women's movement generally. Mr. Philip Snowden, her husband, was Chancellor of the Exchequer in the Socialist Government.

Dr. Montague John Rendall, M.A., was head-master of Winchester School from 1911 to 1924. Educated at Harrow and Cambridge, he played for the University football eleven and the Corinthians. He is editor of Freeman's "School of Hellas."

Sir John Gordon Nairne, who is 65 years of age, is a director and late Comptroller of the Bank of England. He is an Officer of the Legion of Honour (France), 1918, and of the Order of the Crown (Belgium), 1919.

Mr. J. C. W. Reith, the managing director of the present B.B.C., has been appointed Director-General of the new Corporation. Mr. Reith was formerly an engineer with Messrs. S. Pearson & Son, Ltd., London, and served in France as a Major with the Royal Engineers, and was wounded. He was general manager of Messrs. William Beardmore & Co., Coatbridge, 1920-1922.

EDINBURGH AND DISTRICT POSTAL TELEGRAPH AND TELEPHONE SOCIETY.

The opening meeting of the current session of the Edinburgh and District Postal Telegraph and Telephone Society was held in the Telegraph School, G.P.O., on Nov. 2, when Lt.-Col. A. A. Jayne, D.S.O., O.B.E., M.C., opened the proceedings.

A paper was read by Mr. A. Y. Moncrieff on "Impressions of Denmark," surveying in turn the various social and administrative departments of that State. Mr. Moncrieff also gave an exhaustive report of his contact with the Danish Postal and Telegraph Administrations, reviewing in detail the various staffing standards employed in the telegraph service. An interesting item of technical news touched upon was that the Danish State Telephone Service was at that time employing high frequency transmission to telephone trunk lines, four conversations being conducted simultaneously on one circuit utilising different wavelengths.

The next meeting will be held on Dec. 7, subject "The Telephone Services of Holland and Denmark," by Mr. G. H. Taylor, District Manager, Scotland East.

LONDON TELEPHONE SERVICE NOTES.

London Telephonists' Society.

THE November Meeting of the London Telephonists' Society, which was held on Friday, Nov. 5, at the City of London Y.M.C.A., 186, Aldersgate Street, E.C., was particularly successful and the three hundred odd members who attended owe a considerable debt of gratitude to Mr. C. W. Brown and his assistants at the Engineer-in-Chief's Automatic Training School for the great pains which were taken to provide such an interesting paper and a really enlightening working demonstration.

Before the more serious part of the evening's programme, there was half-an-hour of musical items which were arranged by the staff at Gerrard Exchange, and were greatly enjoyed.

The paper read by Mr. Brown, entitled "Automatics in Being," was entirely of a non-technical nature and primarily intended to give the Exchange staffs and those others not initiated into the technical details of automatic working a very general idea of the class of switchboard which will be installed under the Automatic System and of the manual operations still to be performed under that system, and also an insight into the procedure to be adopted during the period of transition from manual to automatic. As the lecturer proceeded, all his points were mechanically demonstrated by reference to working models of a series of selectors and a C.C.I. panel, and loudspeaker reproductions of the various distinctive "tones" which will be used under automatic conditions together with a large number of interesting and demonstrative lantern slides. These working models proved to be of especial interest, and for a considerable time both before and after the meeting, Mr. Brown and his assistants gave members of the Society personal instruction as to the manner in which they functioned.

At the termination of the paper all speakers expressed their whole-hearted appreciation and thanks for all that had been done to ensure such a successful evening. Mr. Valentine took the opportunity of expressing his high appreciation of the enthusiastic manner in which the Engineering staff were doing everything possible to co-operate with the London Telephone Service in the endeavour to obtain the 100% efficiency to which Mr. Brown referred at the conclusion of his lecture.

* * * *

P.O. Telephone and Telegraph Society.

The Lecture Hall at the Institute of Electrical Engineers has seldom been so well filled at a meeting of the Post Office Telegraph and Telephone Society as it was on Nov. 15, when Mr. Dive read his paper entitled "Some considerations of the possibilities of Automatic Telephony in London as foreseen from a Traffic viewpoint." Looking round the large gathering one recognised many, using the words of the author of the paper, both from the "Mountain of vision and the valley of lowly duty," who do not habitually attend the meetings of the Society. It was a tribute to the author, as well as an expression of the recognition of the existence of a "Traffic viewpoint" in this gigantic question, which involves the telephoning of London on a machine switching system, and in which the engineering aspects of necessity occupy so prominent a position. Moreover, as they say across the border, "He has a way with him," and it was perhaps as much "his way" as the subject matter of the paper which attracted so large an audience. It is scarcely necessary to say that whichever the motive, those present were not disappointed. The paper was of that literary standard to which the author has accustomed us. It contained good measure of wit so that from his criticism one would not judge him to be a member of a much advertised club. Suggestions, born of that practical sense of which Mr. Dive has given so much evidence, figured largely in the second half of the paper. He appealed most strongly for vision and courage in forecasting the development of telephones in London, and also in the provision of staff to consider the many problems arisen and arising in connexion with automatics. In so doing he has much support, but apparently there are converts yet to be made. From our engineering colleagues we of the traffic side very nearly caught the spirit of intense optimism—only one doubting Thomas expressed himself audibly, but there may have been others whispering in the valley.

* * * *

H.Q. Ladies' Swimming Club.

The Rana Ladies' Swimming Club (L.T.S. Controller's office) held their second Annual Gala at Holborn Baths on Oct. 23, when a large audience enjoyed a very entertaining programme. Among the events were the Rana

Championship for the "Liddiard" Cup, which the holder, Miss B. Taylor, retained; the Civil Service 100 Yards Breast Stroke Championship, which was won by Miss D. M. House, of Regent Exchange; and the Men's Team Race for the Lotos Shield, which the Accounts Branch retained after a close contest.

The majority of the items on the programme were of a humorous character and the many varied costumes donned and worn in the water, the obstacles grappled with—literally and actually—and the unrehearsed developments of some of the incidents kept the audience in continuous laughter.

Miss J. Liddiard kindly distributed the prizes.

PERSONALIA.

LONDON TELEPHONE SERVICE.

Promotions to Assistant Supervisors, Class II :—

Miss A. J. DINGLE, Kensington Exchange.
Miss M. M. PARSONS, Grosvenor Exchange.
Miss L. BROWN, City Exchange.
Miss E. M. GILLMAN, Langham Exchange.
Miss B. L. M. HARVEY, Brixton Exchange.
Miss D. E. R. MANSFIELD, London Wall Exchange.
Miss K. M. CHANDLER, Burgh Heath Exchange.
Miss E. C. COOMBS, Riverside Exchange.
Miss L. DUGNAN, Hampstead Exchange.
Miss L. E. L. SHAPCOTT, Hop Exchange.
Miss A. A. BAKER, North Exchange.
Miss P. M. STEDMAN, Redhill Exchange.
Miss F. M. WILSON, Sidecup Exchange.

Telephonists resigned for marriage :—

Miss E. GOULDING, Trunk Exchange.
Miss V. W. CRUTTENDEN, Victoria Exchange.
Miss M. E. STANNERS, Victoria Exchange.
Miss B. L. M. BAKER, Victoria Exchange.
Miss M. R. LECKS, Victoria Exchange.
Miss I. E. C. MAY, London Wall Exchange.
Miss G. L. FRANKLIN, London Wall Exchange.
Miss G. B. WIGZELL, London Wall Exchange.
Miss C. DEAN, Paddington Exchange.
Miss W. COPE, Mountview Exchange.
Miss D. E. HYNE, Riverside Exchange.
Miss C. BUTTERFIELD, Holborn Exchange.
Miss M. E. LOBB, Harrow Exchange.
Miss G. A. BARRETT, Central Exchange.
Miss W. F. V. W. GORDON, Central Exchange.
Miss L. G. FRANCIS, London Wall Exchange.
Miss E. M. HALL, London Wall, Exchange.
Miss M. L. FITCH, London Wall Exchange.
Miss A. E. LOVETT, London Wall Exchange.
Miss L. M. HAWKINS, Paddington Exchange.
Miss L. M. LEWIS, Trunk Exchange.
Miss A. LOCKYER, Trunk Exchange.
Miss A. M. CRATE, Trunk Exchange.
Miss F. A. PURKISS, Trunk Exchange.
Miss E. RANTELL, Victoria Exchange.
Miss E. G. COLLYER, Victoria Exchange.
Miss E. L. WALKER, Victoria Exchange.
Miss E. V. BROWN, Victoria Exchange.