



Ericsson News

1929

Managing Editor:

Nos. 12.

English edition

Woldemar Brummer



2,250,000 Telephone Instruments
have been sent out to date
1st January 1930
from **Ericsson Factory at Stockholm**

The results for the year 1929 have exceeded the hopes expressed at the beginning of the year. Our concern pursues its vigorous forward march. New enterprises of considerable scope have been launched. Production as a whole has increased substantially. The number of subscribers in the concession enterprises has been enlarged. Orders at the beginning of the year are more numerous than during any previous year. Unless unforeseen difficulties arise, we can enter upon the new year with resolute hopes.

To all who have cooperated in attaining the good results, I wish to extend a hearty thanks and at the same time express a wish for

A Happy New Year!

A. F. W. Brummer

The

Swedish group
of The



CONCERN

TELEFONAKTIEBOLAGET L. M. ERICSSON

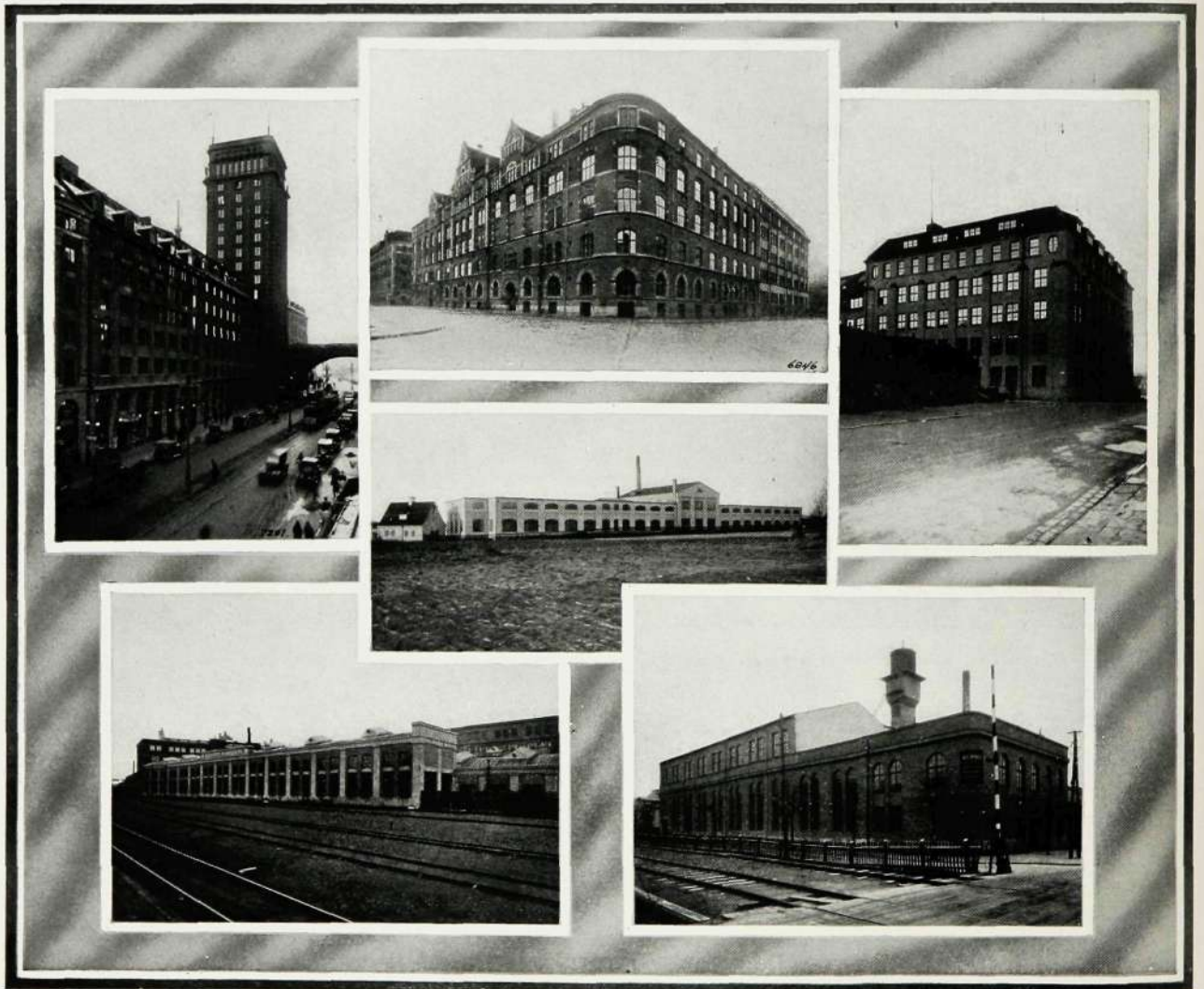
Stockholm

HEAD OFFICE

Kungsgatan 33

Executive, financial, commercial and technical central administration of the
ERICSSON CONCERN.

Showrooms of the Swedish manufactures of the Concern.



R 1546

Head Office,
Kungsgatan 33, Stockholm.

L. M. Ericsson's Telephone Works,
Kungstensgatan 20, Stockholm.

Svenska Radioaktiebolaget,
Ahlströmorgatan 12, Stockholm.

Sieverts Kabelverk (Cable Works), Sundbyberg.

L. M. Ericsson's Cable Works,
Alvsjö.

Aktiebolaget Alpha,
Sundbyberg.

ESTABLISHMENTS OF THE ERICSSON CONCERN IN SWEDEN 1930.

In the Swedish group of the Ericsson Concern the following enterprises cooperate:



FASTIGHETSAKTIEBOLAGET L. M. ERICSSON.

Stockholm, Kungsgatan 33.

Administration of the buildings and of the real estate of the L. M. Ericsson Telephone Company



TELEFONAKTIEBOLAGET L. M. ERICSSON. - Telephone Works.

Stockholm, Döbelnsgatan 18.

Makers of Telephone Instruments for different purposes, modern Telephone Exchanges, automatic and manual. — Telegraph apparatus. — Complete equipment for Fire Alarm Systems for cities and communities and such for public buildings, including equipments for automatic Fire Alarm. — Electricity meters. — Complete equipment for Interlocking Plants and Signalling for Railways. — Time Recorders and Electric Clocks. — Line Material.

TELEFONAKTIEBOLAGET L. M. ERICSSON. - Cable Works.

Älvsjö.

Makers of Cables and Wires for Telephone, Telegraph and Wireless Instruments and Installations.



SIEVERTS KABELVERK.

Sundbyberg.

Cables and Wires for Telephone, Telegraph and Wireless Instruments and Installations. — High-Tension Cables. — Oil-filled Cable Boxes. — Static Condensers for correction of power factor in alternating current systems. — Acid-proof Fittings and Cables for installation in damp localities or where danger of fire exists. — Cables and fittings for electrical hotbed installations.



SIGNALBOLAGET.

Stockholm, Kungsgatan 33.

Contractors for erection of electrical and mechanical Interlocking and Signal Plants for railways. — Block Systems. — Level-crossing Signal Systems.



SVENSKA RADIOAKTIEBOLAGET.

Stockholm, Alströmergatan 12.

Broadcasting Equipment: Receivers. — Loud Speakers. — Accessoires. — Commercial Radio Equipment: Transmitters. — Receivers. — Long-distance Telephone Equipment: Carrier Current Telephone and Telegraph Systems. — Telephone Amplifiers. — Complete Test Boards. — Audio Frequency Signalling Systems. — Repeating Coils. — Loading Coils.



L. M. ERICSSONS ANLÄGGNINGSAKTIEBOLAG.

Stockholm, Kungsgatan 33.

Contractors for erection of: Private Telephone systems, automatic and manual or with Inter-communication Telephones. — Conference Telephone Systems, with or without combination with private telephone systems. — Fire Alarm Systems for cities and communities and for public buildings. — For all kinds of enterprises and public buildings: Automatic Fire Alarm. — Time Recorder. — Electric Clocks. — Signalling and Auto-call Systems.



AKTIEBOLAGET ALPHA.

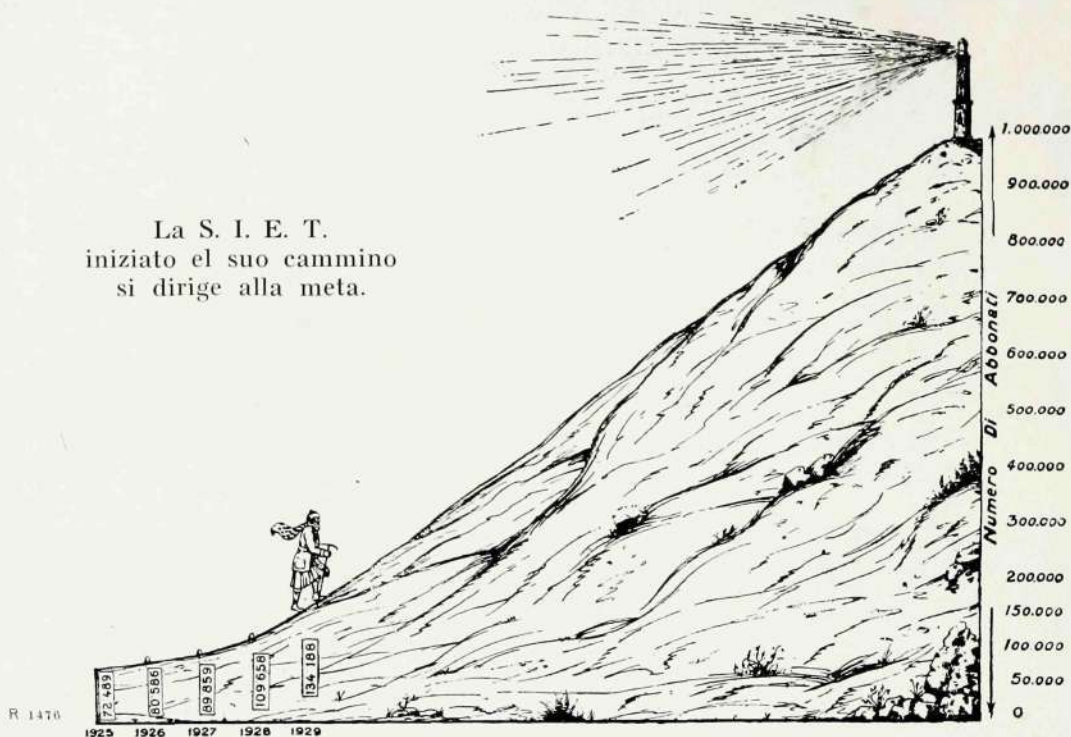
Sundbyberg.

Makers of Material — Testing Machines. — Bakelite Parts. — Low-tension Condensers. — Complete Equipment for Interlocking Plants and Signalling for Railways.

Including foreign administrative and financial Corporations, Telephone Works, Operating Companies, Sales and Erection Organizations, the Concern at present comprises
more than 50 enterprises.

On request projects and estimates are submitted and works is executed on contract for
Complete Citie, Suburban and Rural Telephone Systems and
Longdistance Telephone Lines
according to the most modern principles under
Control of the Central Administration.

La S. I. E. T.
iniziato el suo cammino
si dirige alla meta.



— **Il Servizio Telefonico in Europa** (The Telephone System in Europe) is the title of a profusely illustrated account, in 166 pages, of a tour of investigation through several countries of Europe undertaken by a commission of Italian telephone specialists headed by the directors, Pio G. Venturini, engineer, and Dr. M. Fano, in the latter part of the summer of 1928. In No. 8—9 of "Ericsson News", 1928, page 1, is found an account of the visit of the commission to Sweden. The commission visited also Germany, Norway, Denmark, England and France for the same purpose. These experts were representatives of the company, Società Industrie Elettro-Telefoniche (S. I. E. T.), Turin, a controlling company that operates 11 different organizations specializing on telephone extension. Of these may be mentioned more specifically Società Telefonica Interregionale Piemontese e Lombarda (Stipel), Società Telefoni Italia Medio Orientale (Timo), Società Telefonica delle Venezie and Società Anonima Telefónica Interna Speciale (Satis), all of which were represented by the commission. S. I. E. T. consequently represents three of the five concession zones of

Italy ("Satis" is an installation company connected with Stipel).

The report in part comprises a thorough-going account of the development of the telephone and the telephone industry and its present status in the mentioned countries, and in part it summarizes the impressions gained by the commission during its travels regarding the extension of the telephone and an analysis of the factors that dominate in cultural circles of the regions in question. This section of the report therefore deals especially with city and interurban exchanges, rural telephone systems, private telephone installations and telephone rates.

The contents of the report testify to the serious study pursued by members of the commission and their alert observation of all conditions that came within the range of study, and the report is therefore of value not alone for S. I. E. T., as an contribution in planning the general lines along which the telephone system in three of the zones in Italy will be developed, but also as a valuable contribution to current technical telephone literature. The commission concludes its work with the comment that follows, words that

express a persistent effort to secure the best for its own country, an unerring faith in its own power and a worthy recognition of the progress made by other countries in the field:

"After a conscientious and thorough study of the results attained by countries more progressive in this respect than our own, after a deliberate study of the aims of telephone technique and telephone development, with a clear vision and understanding of the needs and wishes of the public, with the perseverance, enthusiasm and will power that characterize the Italian people, the managers and coworkers of S. I. E. T. have worked out their own course in the field of telephony and will not fail to attain the goal set before them."

This ambition is illustrated by the commission in its report with a symbolical sketch, which we have taken the liberty to reproduce above (page 4).

— **Automatic Fire Alarm.** An automatic fire alarm installation has been carried out in the *Royal Opera House* this fall according to the L. M. Ericsson system.

The installation comprises a central apparatus of 40 loops and about 700 thermo contacts divided into 34 loops and placed above certain areas of the theatre as well as in the attic above the auditorium.

The central apparatus is located with the door-keeper and folds into the wall at the centre, being easily in sight of anyone coming in. The apparatus is attached to a special fire alarm box in the city's fire telegraph system at the Johannes Fire Station in such a way that a warning either of fire or of some possible trouble to the installation is signalled to the fire department in different ways.

The arrangement is operated by two stationary accumulator batteries, each with a capacity of 72 ampere hours. The batteries are placed in a separate battery room near the central apparatus. The arrangement for charging of the batteries is placed in the guard room.

The Royal Opera is the seventh of the theatres of Stockholm to be provided with the automatic fire signal apparatus.

A list follows of the automatic fire signal systems installed by the company since 1928,

when the perfected system was placed on the market.

Oskarsteatern,	Stockholm.
Vasateatern,	Stockholm.
Södra teatern,	Stockholm.
Folkteatern,	Stockholm.
Komediteatern,	Stockholm.
Konserthuset (Concert Hall),	Stockholm.
Kungl. Operan (Royal Opera),	Stockholm.
A.-B. Sidenhuset (Department Store),	Stockholm.
Albert Bonnier (Book Publishers),	Stockholm.
A.-B. H. Österman (Motor Car Co.),	Stockholm.
A.-B. Stockhaus & Co. (Department Store),	Stockholm.
A.-B. Saltsjökvärn (Flour Mill),	Stockholm.
Stockholms Rådhusarkiv (Court Archives),	Stockholm.
Riddarhuset (Hall of Knights),	Stockholm.
L. M. Ericsson Telephone Co. (Old Factory),	Stockholm.
L. M. Ericsson Telephone Co. (New Factory),	Stockholm.
L. M. Ericsson Telephone Co. (Cable Works),	Älvsjö.
A.-B. Bofors,	Bofors.

The L. M. Ericsson Telephone Company puts out automatic fire alarm installations of its own type also in connection with sprinkler systems, where local conditions and the technical requirements of fire protection demand this.

The following installations are partly provided with sprinkler systems.

A.-B. Nordisk Skoindustri,	Stockholm.
A.-B. P. U. Bergström, Norrmalm,	Stockholm.
A.-B. P. U. Bergström, Södermalm,	Stockholm.
A.-B. Saltsjökvärn,	Stockholm.
A.-B. Stockholms Central Garage,	Stockholm.
General Motors Nordiska A.-B.,	Stockholm.
Philipson's Automobile A.-B.,	Stockholm.
Stockholm Cotton Spinning and Weaving Co.,	Stockholm.

After a thorough test the system is now definitely approved by the fire-chief, A. Svinhufvud, for connection with the Stockholm communal fire telegraph system.

During the comparatively short period that it has been in use the Ericsson Automatic fire

chief of the Stockholm fire department

alarm system has twice functioned honorably and effectively in the service of fire protection and has averted injuries and damages of enormous extent. These two instances are described in "Ericsson News": Södra Teatern in Stockholm in March, 1928, (see "Ericsson News" No. 4, 1928) and Saltsjökvärn in October, 1929 (see "Ericsson News" No. 10—11, 1929).

In this connection it may be of interest to point to one instance of the extreme sensitiveness of the system.

The case is in connection with the Philipson garage (see the list given above) which automatically signalled the fire department on September 11, 1929. The daily newspaper, "Dagens Nyheter", for September 12, gave the following account:

"A summons of the fire department that aroused considerable interest took place at six o'clock on Wednesday afternoon. The alarm came from the Philipson garage, St. Eriksgatan 117, and both the Johannes and Kungsholm departments rushed to the site. On their arrival, however, it was found that the alarm had been caused by *some trouble in the alarm signal system*, and so the fire wagons could return immediately. The alarm had attracted large crowds of people."

The following day the chief of the fire department, A. Svinhufvud, published a correction in one of the city newspaper, which fully disclosed the wrong conception of the function of the alarm signal on this occasion. Through this correction it was brought out that there was *no trouble* in the system, but that the system even in this instance had functioned as a *dependable and alert fire watchman*. The fire chief's correction in the daily press for September 13 read as follows:

"The fire alarm from the Automobile Palace on Wednesday afternoon that was reported as faulty was instead a premature warning of an existing danger in that a *vagrant current* from a high-tension system had got transferred to the low-tension system. The alarm warned, as already indicated, of a danger of fire and so prevented further danger. The alarm consequently *did not arise through a trouble in the signal*

system, which on the contrary functioned admirably and still further strengthened the faith of the fire department in its efficiency."

— **L. M. Ericssons weak current equipment** in the office of Åhlén & Holm, Stockholm.

It is naturally clear that in an enterprise like Åhlén & Holm, where every detail in the organization is minutely developed to meet the exceedingly high demands on efficiency, the most modern means are used even within the field of the electrical low current.

The plans for these details have been worked out by experts in matters of organization within the firm of Åhlén & Holm, who have cooperated with the consulting engineers of the firm and the L. M. Ericssons Anläggningsaktiebolag (Installation Co.). The internal telephone needs are handled by an automatic exchange. In the manager's office there is naturally a L. M. Ericsson conference telephone, with some twenty connections. By pressing on a button he can talk direct with his associates, even with several at the same time if he so wishes. This conference telephone, so to speak, gathers all the leading wires together into one spot — the manager's desk. A similar telephone arrangement will be worked out between the head of the buying department and the stock managers. Electrical clocks, 75 in all, are found in all offices and despatch rooms. These clocks are operated from two Master Clocks, to which also approximately ten time recorders are attached, by means of which the arrival and departure of the office personnel are controlled. From these points are regulated also the signals which indicate time for beginning and ending the day's work.

Of further interest is the so-called auto call system, which consists of a number of signal bells in the office, which are operated by an apparatus attached to the main telephone switchboard with the purpose of reporting, by means of special code signals, to a person not found at his desk that he is wanted on the telephone.

The local automatic telephone exchange and the electrical Master clock with attached control instruments are all grouped together in one general central. The batteries are charged direct from the transformer station.

— **Newly installed fire alarm system.** In Lund, Sweden's second university center (24,000 inhabitants) there has been installed in connection with the new and in every respect modern fire station (see accompanying illustration) a modern fire alarm system, which supplants the old and is based on the L. M. Ericsson-Morse supervisory current system.

This project — which was put into operation on September 30 — comprises equipment for a station consisting of a alarm board (see illustration at foot of page) with three apparatus fields, of which two function for the fire alarm system itself, each one for connection of three loops for fire alarm boxes and signal bells outside the station designed for the reserve personnel, etc.

The third field contains the apparatus and connections for local alarms, the charging of accumulators, etc.

This alarm board is worked out in accordance with the normal types used in larger plants (see the L. M. Ericsson brochure B 12 E, page 39).

There are 46 fire alarm boxes of the larger L. M. Ericsson model with handle for pulling out to release the signal work and fitted with telephone instrument. To correspond with what one finds as a rule in connection with the modern Swedish fire alarm systems, these fire alarm box telephones are also used by the police

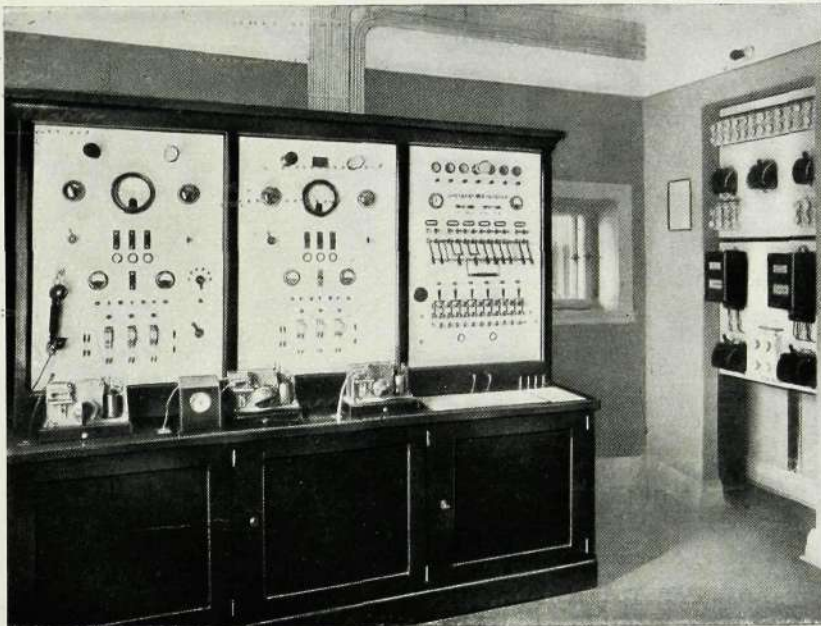


R 1543

The new fire station at Lund, on Kävlingevägen, was opened October 26, 1929.

on duty, for patrol, etc. For this purpose a telephone line has been extended between the fire station and the city police station for direct connection, via the fire station, between the fire alarm boxes and the police station.

All work on the lines and the installation of the fire boxes and modernization of necessary appliances, with the exception of the installation of the alarm board, which is the work of the L. M. Ericssons Anläggningsaktiebolag (Installation Company), has been carried out by the personnel of the fire department in a very satisfactory way in conformance with the program of work outlined by the General Fire Signal Bureau.



R 1544

Alarm board in the new fire station at Lund.

— **Literature.** The *L. M. Ericsson Review*, No. 7—9, 1929 (48 pages), has been issued in Swedish, English, French, Spanish and German, the Swedish, French, Spanish and German editions No. 10—12 (52 pages) and No. 1—3, 1930, (44 pages) in Swedish and German have appeared with the following contents:

No. 7—9, 1929: *Time Recording as an Aid in Estimating Cost of Production.* — *The Value of the Automatic Fire Alarm.* — *Electrolysis in Underground Cables. II.* — *A Comparison between Manual and Automatic Telephone Service.* — *Induction in a System of Parallel Lines (only in the English edition).*

No. 10—12, 1929: *The Electric Interlocking Plant at the Passenger Station in Reval (Tallinn), Esthonia.* — *New Swedish Systems for High Frequency Transmission over Telephone Lines. I.* — *The Influence of Condensers on the Functioning of Relays with Respect to the Periodic Case.*

No. 1—3, 1930: *The information Service with Regard to Subscribers' Numbers in a Large Telephone Net.* — *On Suburban Telephone Traffic.* — *Static Condensers for the Improvement of the Effect Factor in A. C. Nets.* — *New Swedish Systems for High Frequency Transmission over Telephone Lines. II.*

— “*Medidas de equivalente y nivel de transmisión*”, by Ignacio Maria Echaide, engineer and director for the Telephone system in the province of Guipuzcoa. San Sebastian, 1929.

The publication indicated above comprises 82 pages (8^o) of description of an instrument for measuring of the transmission equivalents and levels. This measuring instrument is constructed by “*Société d'Etudes pour liaisons téléphonique et télégraphiques*” and is installed in the laboratory of the above named telephone system. The writer explains in his introduction that this measuring instrument, with some minor modifications, will soon constitute a practical solution for the proposition outlined by “Co-

mité consultatif International de Communications téléphonique à grande distance” (C. C. I.) during its conferences of the 22nd and 27th of June, 1925.



R 1541

Map of Sweden.

Indicating places equipped with L. M. Ericsson's fire alarm systems.