



# Ericsson News

1929

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## — News from Società "Ericsson" Italiana, Genoa.

The picture on this page represents "Coppa Ericsson", a prize given by friends of Società Ericsson Italiana and the parent concern in Stockholm, and which is awarded at the international yacht races at Genoa. The races for Coppa Ericsson took place from the 9th to the 17th February for yachts in the international 6-metre class, the following nations taking part, viz. Italy, Sweden, Denmark, France, Great Britain and Holland. The daughter company at Genoa states with pride that "Coppa Ericsson" is a trophy which the competing yachtsmen fight for with great enthusiasm, and it hopes that this trophy will this year also be taken home by our countrymen. The races for "Coppa Ericsson" in February 1928 at Genoa were described in Ericsson News No. 2 for that year. In the same number the cup with the same name, offered as a prize, was illustrated. The prize was in 1928 carried off by the Swedish yacht "Windy", and this

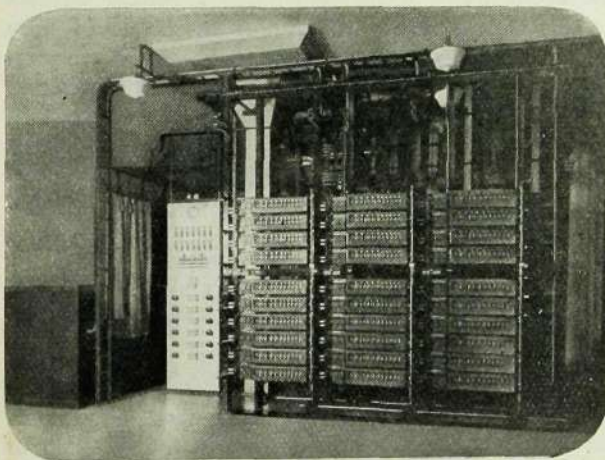


R 1136

year by the Danish yacht "Dana". The cup is thus still in the hands of the "Scandinavian Family".

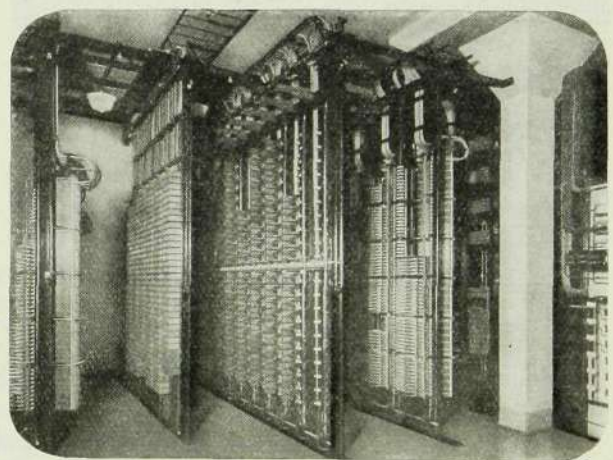
— News from Italy. The automatic telephone exchange in Catania, belonging to the V. Concession Zone in Italy, was opened for public service on the 1st January. The exchange is constructed according to the L. M. Ericsson automatic telephone system for a maximum of 10,000 lines, with facilities for the present of connecting up 4000 lines. This station will replace a manual C. B. Exchange installed by the Western Electric Company. We reproduce below two views of the newly erected exchange.

— News from Russia. The State Weak-Current Trust in SSSR has delivered an Exchange for 400 lines for internal service to the Leningrad Municipality, designed on the L. M. Ericsson automatic telephone system for 500-line selectors. A similar equipment for internal service has also been delivered to the Peoples' Finance Commissariat in



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The automatic exchange in Catania.  
The register frame.

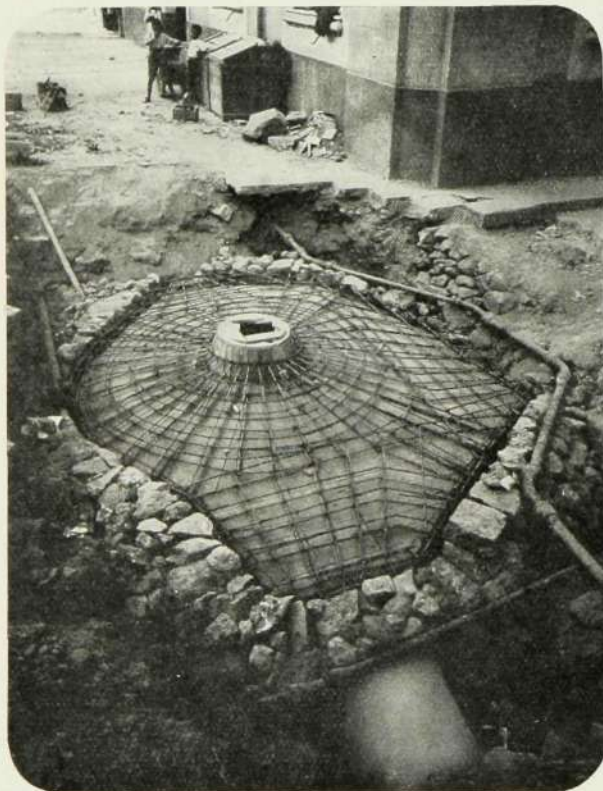


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Interior of the automatic telephone exchange  
in Catania.

Moscow. The Weak-Current Trust has during 1928 completed the equipment of two new automatic exchanges in Rostov, constructed on the Ericsson system, which has been adopted by the Peoples' Commissariat for Posts, Telegraphs and Telephones for the automatization of all telephone networks in the Soviet Union. The delivery and fitting up of the automatic exchanges in Moscow are proceeding. For the present four exchanges are being fitted up for a total of 35,000 lines with arrangements for connecting them to the manual exchange for 60,000 subscribers, once upon a time installed by the Danish-Russian Telephone Company. The latter exchange will remain in operation until the whole automatization programme has been completed, and will in the meantime be provided with arrangements for traffic in both directions.

— **Automatization of the Telephone Network in Tallin (Reval),** the Capital of Estonia. For this purpose the Estonian Post, Telegraph and Telephone Administration has ordered a complete automatic exchange of the 10,000-line system, with facilities for extension up to 60,000 lines, from the Telefonaktiebolaget L. M. Ericsson, Stockholm. The exchange is at present to be fitted up for 1000 lines, and is intended for operation in connection with the present

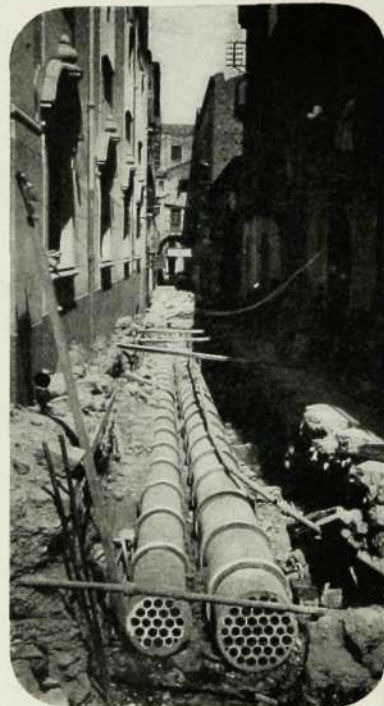


R 1141 Catania. A cable pit in the course of construction.

3000-line manual exchange working on the local battery system.

— At a general meeting of **The Institution of Railway Signal Engineers** held at London May 9th 1928, Mr. A. C. Rose, Ass't Signal Engineer for

the M. & S. M. Ry., Madras, British India, read a paper entitled "The Square Sheet Locking Table". Under the discussion which followed, Mr. W. J. Thorrowgood, the now deceased past president of the Institution and former Signal and Telegraph Superintendent with Southern Ry. uttered — among other things, — that he was looking forward to a standard



R 1142 Cable-laying in Catania.

method of locking, and a standard locking sheet. At present there were two kinds of locking in the signal frame, electric locking and mechanical locking, and he was looking forward to the time when the mechanical locking would be entirely dispensed with. Electric locking was just as safe and sure as mechanical locking, and presently they would find all frames would be electrically locked entirely, and done under one head.

This statement by Mr. Thorrowgood is of very special interest to us on account of our having installed an electric interlocking frame at Hässleholm, Sweden (see The L. M. Ericsson Review, Nos. 1 to 3, 1927, referred to in The Proceedings for 1928 of the above institution), constructed according to the identical principles which Mr. Thorrowgood declared to be those of the future.

In the interlocking frame at Hässleholm, the locking between the signals and switches is all electric, thus eliminating any mechanical locking. This installation is described in The L. M. E. Review, Vol. 4, Nos. 1—3, page 12.

— **Automatic Fire Alarm.** As a consequence of the disastrous theatre fire in Madrid the question of efficient fire protection has again been brought to the forefront. The Stockholm Fire Chief, Captain A.

Svinhufvud, on being interviewed has informed the press that automatic fire alarm systems of the L. M. Ericsson type have been installed in the Stockholm theatres, and that these installations have already



R 1143 Cable-laying in Catania.

proved their value by warding off a threatening fire during a performance. An actress who was pressing a dress with an electric iron in her dressing room had left the room with the current turned on the iron. Some time afterwards the dress was set on fire, which would have spread if the fire alarm bell had not automatically given a warning signal. The firemen on watch, however, were now called in and put down the fire before it had done much damage. What might have turned out a catastrophe was prevented without the audience being aware of anything unusual. This new fire alarm system is now widely used not only in theatres and cinema houses, but also by a number of leading stores and manufacturing establishments in Sweden.

— Notable cable delivery by the **Sieverts Cable Works**. Last year Sieverts Kabelverk of Sundbyberg, since 1st July 1928 incorporated with the Ericsson Concern, effectuated a noted contract of high tension cables for 33.000 volts to the Municipal Electricity Works of the City of Stockholm. In the following is given the design of these cables.

The underground as well as the submarine cables are designed as three-core cables, each core of 150 sqmms under a separate lead sheath. The insulation consists of impregnated wood pulp paper and has a

thickness of 8 mm. Thickness of lead sheath 2,1 mm. for the underground cables and 2,5 mm. for the submarine cables. The armouring for the underground cables consists of flat steel wires of  $6 \times 1,4$  mm. and of round galvanized steel wires of 6 mm. for the submarine cables. Overall diameter 90,5 and 102 mm. respectively.

In all, 10.500 meters of underground cable were supplied in lengths of 300 meters and 3075 meters of submarine cable in 3 lengths of 775 meters and 3 lengths of 250 meters.

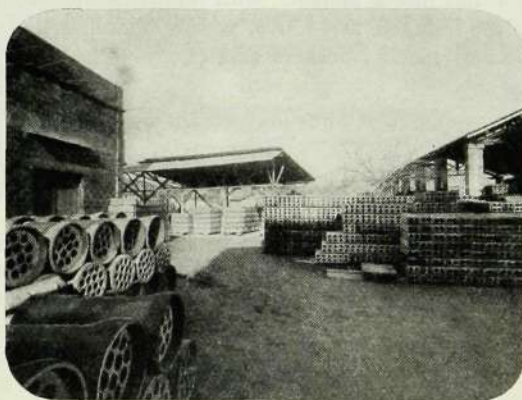
Dielectric losses were found to have an average value of  $\cos \varphi = 0,0024$  at  $+ 15^\circ$  per km., 40.000 volts 50 cycles. Same losses were recorded for all tensions up to 70.000 volts. Insulation resistance averaging 520 megohms and capacity 0,263 mfd at  $+ 15^\circ$  C.

The underground cables are now laid in a layer of gravel with three cables side by side with a mutual distance between the cables of a brick's thickness and at depth of 900 mm.

For the purpose of making possible a close study of the working processes in the cables under pressure, principally for investigating the expansion and contraction of the cable compound, expansion tanks with vacuum and pressure gauges have been installed at three cable joints.

All junction and end boxes are of the oil filled type, hermetically closed, and the oil has been poured in at the low pressure of 1 mm. mercury.

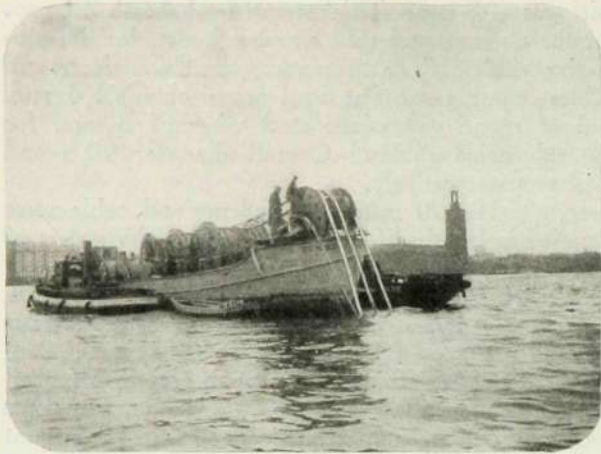
— **Sieverts Cable Works**, the largest manufacturer of cables and wiring materials in the north of Europe, and occupying an important position among the world's cable manufacturers, was merged in the Ericsson concern on the first July 1928, as already re-



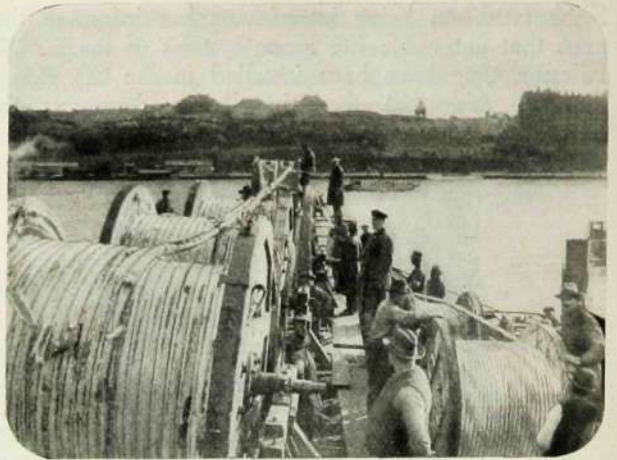
R 1144 Catania. The Cement Works and store of cable drums for the telephone network.

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ported. For several years past this company has arranged so-called propaganda or publicity courses in large Swedish towns in order to make interested parties familiar with its manufactures and their practical use. These courses include lectures by experts, exhibition of the company's products, and the showing of films which illustrate the work in the factory, cable laying, etc. The last course was held in Malmö on the 21st and 22nd November in the public rooms of the



R 1147 High-tension marine cable laying.



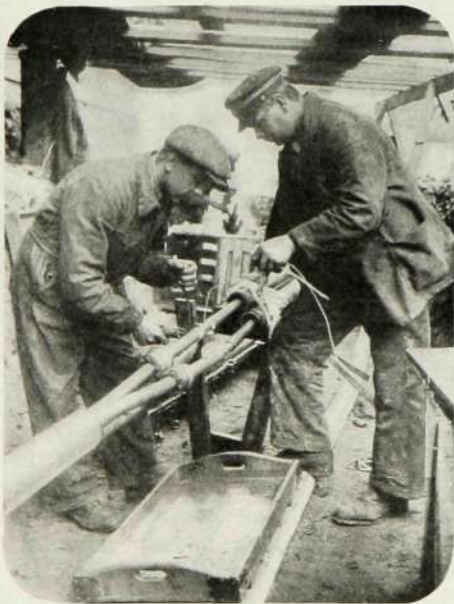
R 1148 High-tension marine cable laying.

Kungsparken Restaurant. The moving picture film this time showed the splicing of earth cables with compound- and oil-filled boxes, and the extension, jointing and fitting of the telephone cable between Stockholm and Gothenburg. The film was of an instructive character for persons engaged in such work. Engineer E. Olsson held a lecture, illustrated by sciop-ticon pictures, entitled "News in regard to Rubber-and-Lead Cable Installations". In connection with the film performance and lecture, a number of Sieverts' products were exhibited and demonstrated. Other firms taking part in the exhibition were the L. M. Ericsson Agency for Sweden which exhibited Time Recording Apparatus, Master Telephones, and Coin Counting Apparatus; A.-B. Carbon showing Time Control Installations, and Svenska Radio A.-B., which has been merged with the Ericsson concern since the 1st January 1928, which exhibited different models of Loud Speakers and other Radio materials.

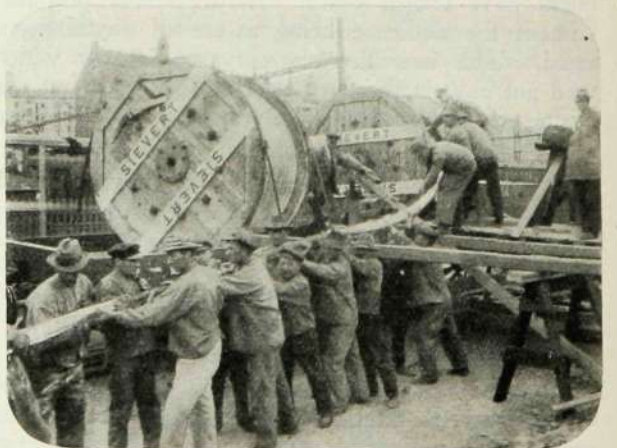
On Wednesday, the 21st November, the number of visitors in the forenoon was comparatively small, only about 40 persons, among whom was seen the chief for the Malmö Electricity Works, Mr. Molin, and a number of heads for manufacturing establishments, consulting engineers, etc. On Thursday the 22nd the number of visitors was much larger, being a hundred in the forenoon alone. At noon motorcars arrived from Hälsingborg with practically all the consulting engineers there, the works engineer at the Hälsingborg Electricity Works accompanied by several of his linemen and fitters, which is mentioned here in order to show the interest accorded the course. About 250 persons were present at the lecture held in the evening, too many for the available seating accommodation of the hall.

The persons taking part in the course showed the greatest interest in all the exhibits. Most of the Scanian sugar mills had sent their electrical staffs on one of the days the course was in progress, in spite of the sugar campaign going on at the time.

General satisfaction with the course was expressed by the visitors.



R 1149 Jointing a high-tension cable.



R 1150 High-tension earth cable laying.