

America's Telephones Lead the World Service Best—Cost Lowest

from *London Daily Mail*

Why is it that Government ownership and management of the telephones is practically always a failure? Why is it that throughout the length and breadth of Great Britain and the Continent hardly a single efficient long-distance service is to be found? Why is it that in New York one

from *Electrical Industries (London)*

There is a certain amount of satisfaction in the fact that Mr. Winston Churchill got so angry over the freaks of the telephone the other day that he flung his receiver on the floor. As a member of the Government which purchased the telephone system, he deserves all the torture that Post Office working can inflict. But his rage

from *"Le Petit Phare de Nantes," Paris*

"But today I found I had to talk with Saint-Malo, and, wishing to be put through quickly, I had my name inscribed on the waiting list first thing in the morning; the operator told me—though very amiably, I must confess—that I would have to wait thirteen hours and ten minutes (you are reading it right) in order to be put through."

Herr Wendel, in the German Diet.

"I refer here to Freiberg. There the entire telephone service is interrupted at 9 o'clock p. m. Five minutes after 9 o'clock it is impossible to obtain a telephone connection."

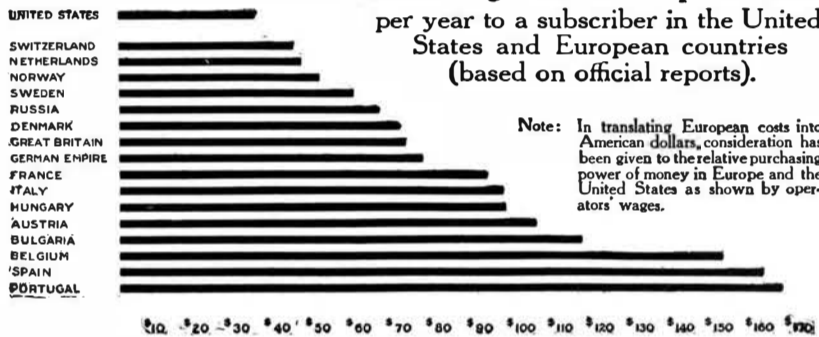
Herr Haberland, Deputy, in the Reichstag

"The average time required to get a connection with Berlin is now 1½ hours. Our business life and trade suffer considerably on account of this lack of telephone facilities, which exists not only between Düsseldorf and Berlin and between Berlin and the West, but also between other towns, such as Strassburg, Antwerp, etc."

Dr. R. Luther, in the Dresden Anzeiger

"In the year 1913, 36 years after the discovery of the electro-magnetic telephone, in the age of the beginning of wireless telegraphy, one of the largest cities of Germany, Dresden, with half a million inhabitants, is without adequate telephone facilities."

Real Average Cost of Telephone Service per year to a subscriber in the United States and European countries (based on official reports).



Note: In translating European costs into American dollars, consideration has been given to the relative purchasing power of money in Europe and the United States as shown by operators' wages.

These are the reasons why there are twelve times as many telephones for each hundred persons in the United States as in Europe.



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In the rear part of the promenade deck, there is a guard-house and central station for all fire alarms. Five professional superintendents, trained at the Kiel Fire Brigade, under the guidance of a responsible chief officer, have been intrusted with a well-organized watching and patrolling service and with the upkeep of all fire alarms and signaling apparatus on board. There are in all 450 fire alarms converging toward an annunciator board in the guard room. These electrical fire alarms, which are arranged to work automatically at a given temperature, are installed not only in the cabins and saloons, but, with wise foresight, in the less frequently used holds, refrigerating chambers, post offices and storage rooms.

As regards the rooms destined for the crew, another step was taken to insure even greater safety against fire, by the installation of automatic sprinklers. There are 800 sprinklers of this kind aboard the "Imperator." As soon as some of them are actuated automatically, the pressure in the pipes decreases, thus operating an electrical alarm at the central station. The extinguisher pipes are in their turn connected directly with the general sea-water conduits, thus providing always the water required to produce the necessary head and dispensing with any special pump in the event of an outbreak.

Reference should also be made to the Rich apparatus, arranged to work with carbonic acid instead of with steam as heretofore, and to the new Draeger apparatus, both of which, it will be recalled, won the SCIENTIFIC AMERICAN Safety Medal. These, in conjunction with the customary König smoke helmets, are bound to prove most helpful in the case of smoke production.

Evolution of the High-tension Insulator

(Concluded from page 418.)

the development of high-tension insulation, he being the first to make successfully, and on a commercial basis, high-potential insulators from a material other than glass or porcelain. It will be observed that the suspension members are imbedded in the insulator and interlaced, so that should the insulating material be shattered, the line would still be supported by a chain made up of the suspension members. Owing to the swivel form of the terminal, two or more units may be connected or disconnected in the fraction of a minute, no special tool being required to operate the connecting nut, as a plain wrench, a nail or even a piece of wire may be employed. The clamp, which is shown suspended from one of the insulators, is formed with flared ends to prevent crystallization and possible breaking of the conductor as it is swung back and forth by the wind. The disk or suspended type of insulator has become so standardized that it is used on all lines operating above 50,000 volts, and even on lines of 44,000 volts in some instances. The 10-inch disk "strain" and "suspension" insulators here illustrated have been tested to show a puncture value in oil of 150,000 volts, and of 100,000 volts when tested to dry arc value. The rain arc value is 55,000 volts, line voltage 25,000 volts and mechanical value 20,000 pounds, while the weight is not 11 pounds.

A New German Life-saving Costume was exhibited at the International Conference on the Safety of Life at Sea, in London, by its inventor, Paul Raschke, a tailor of Breslau. It is made of a composition of aluminium and rubber, with a padded belt around the body under the arms. The outfit includes a pouch intended to contain supplies of food and drink. The inventor demonstrated his apparatus in the Thames. He adjusted the suit in less than three minutes, jumped in the river, where the costume kept him afloat, and propelled himself in any desired direction with a pair of paddles. Taking a cigar from his pouch, he lighted it and smoked most of the time he remained in the water, about 45 minutes. He claimed that the suit kept him comfortably warm in the cold water.

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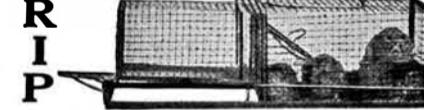
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