



**FACTS
ABOUT THE
WESTERN
UNION
CABLE
SYSTEM**



New York City is The CABLE CENTER

FROM 25,000 offices in the United States, and from points in Canada and Mexico, a network of telegraph wires leads to the Western Union Cable Office at 40 Broad Street, New York City.

Here connections are made with fourteen Western Union Cables:

Eight across the Atlantic, three to Cuba, one to Barbados and thence to South America, and two to the Azores and then to Italy, Spain and to Germany.

Cablegrams from abroad will transit over Western Union wires if the sender marks them

"VIA WESTERN UNION"

Foreign correspondents should be advised of this fact and requested to so mark their messages.

Telegrams to ships at sea may be sent from any Western Union Office.

How Cablegrams Go

To Great Britain and Ireland



If destined to Great Britain, they are sent from New York directly to London and Liverpool over one of the eight trans-Atlantic Western Union cables. This is accomplished by recently developed devices which do away with the manual relaying that was formerly necessary. In other words, by the Western Union system these two cities are brought as close to New York, telegraphically speaking, as Chicago or Philadelphia. Cablegrams for the Irish Free State are taken off the cable at Valencia.

To France



Paris is brought almost as close to New York as London, since the Western Union office at 2 Rue des Italiens, Paris, is reached by two direct Western Union cables. This means that distance is no bar to international trade—and that there is a serious waste of time in mailed letters that cannot travel any faster than the fastest ship.



To Belgium

Our London office is connected by direct Western Union wires to Antwerp and Brussels.



To Holland

In Amsterdam, we have our own office, our own messengers. Service is by direct Western Union wire with London.

To Germany

Messages travel by Western Union cables direct from New York to Germany.

We have two routes—thus assuring an uninterrupted service.

To the Scandinavian Countries and the Far East

A pneumatic tube system, connecting our London office with the Great Northern Telegraph Company, gives almost direct connection to these points.

To the Levant, North and East Africa, India and the Malay Peninsula

Messages speed through pneumatic tubes from our London office to the Eastern Telegraph Company which serves these countries.

To Italy and Spain



Messages for these countries are carried by the Western Union Permalloy cable to the Azores, where connection is made with the new Italian cable, and with the Eastern Telegraph Company which serves Portugal, West and South Africa and Australasia.



To Cuba and the West Indies

New York is connected direct to Havana by three circuits. Practically direct connections from Havana give unsurpassed service to the West Indies.

To South America

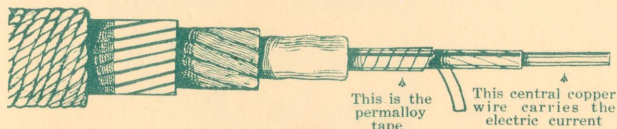
Direct working from New York by the East Coast route provides a service so prompt that Brazil and The Argentine can on occasion be reached in three minutes.

To Japan, Dutch East Indies, Philippine Islands and Hawaiian Islands

A pneumatic tube system connects our San Francisco office with the Radio Corporation of America, which is in direct wireless communication with these countries.

Permalloy

The magic metal that made better cables possible

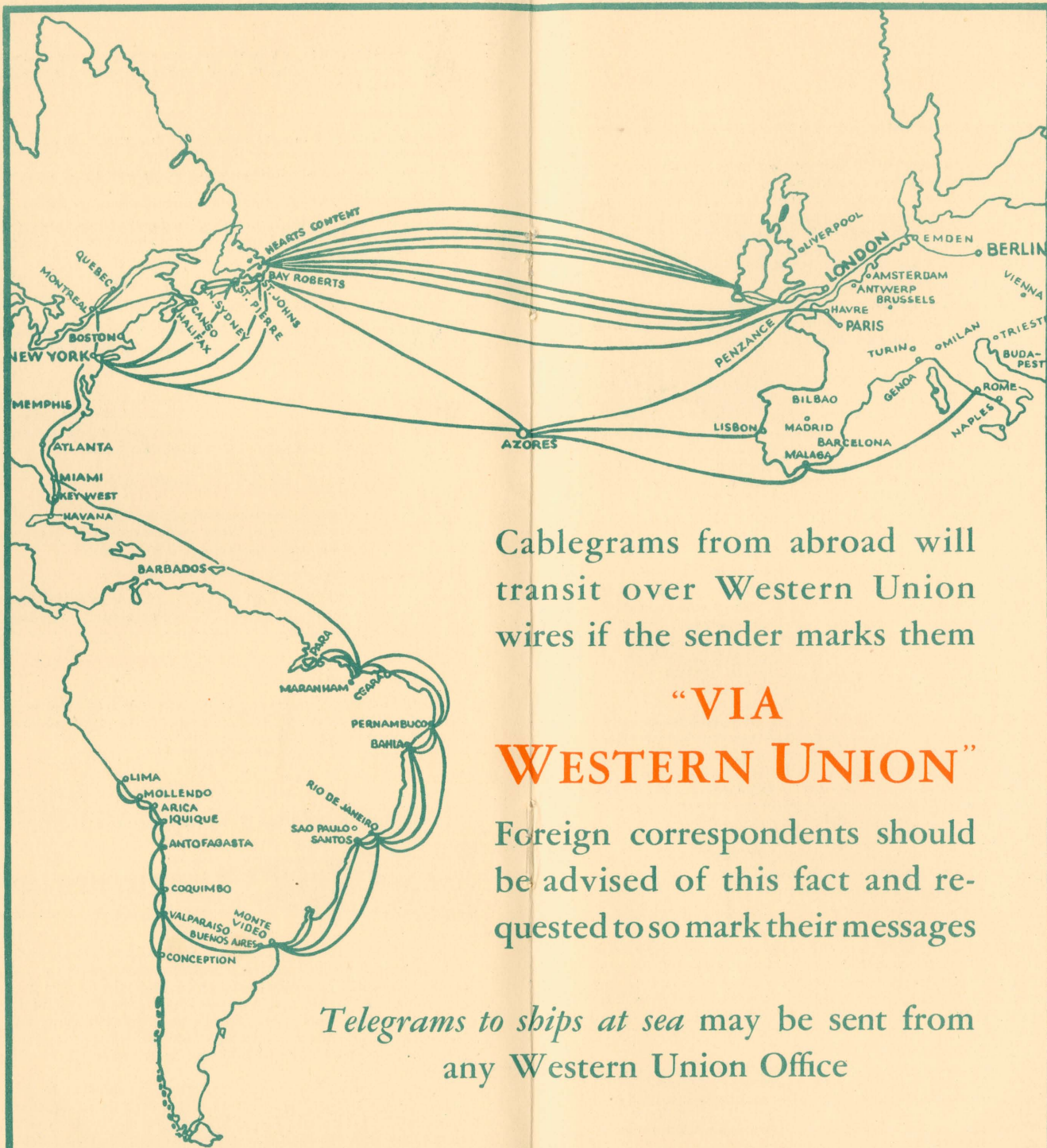


This is the permalloy tape

This central copper wire carries the electric current

ONLY a tiny tape one-eighth inch wide and six-thousandths inch thick—but it makes it possible to multiply by five times the number of words that can be sent over a cable in a given time. "Permalloy" has been used by the Western Union in three cables laid since 1924. One, between Great Britain and New York. One between New York and the Azores. And one between New York via Bay Roberts, Newfoundland, to the Azores.

The use of "permalloy" and the perfecting of automatic devices which permit as many as four messages to be sent at the same time over the same cable, is speeding the day when no one will tolerate the time-waste inherent in the carrying of letters by ships.



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Classes of Western Union Cable Service

FULL RATE SERVICE for code and other messages of an urgent character requiring quick transmission and prompt delivery.

This is the main service. The messages may be written in code or cipher language, or in the various languages approved for telegraphic correspondence. In plain language messages each word of not exceeding 15 letters is counted as one. Code words must not contain more than 10 letters and they must be pronounceable. *Cipher words composed of groups of figures or of groups of letters are counted at the rate of five figures or letters, or fraction thereof, to a word.

The presence of a code word in an otherwise plain language message subjects the entire message to the code count. Plain language words in cipher messages are subject to the regular 15-letter count.

DEFERRED HALF-RATE SERVICE for messages in plain language not requiring the greatest expedition. Such messages are subordinated to full-paid messages in the order of their transmission for a period of not exceeding 24 hours and are taken at half the regular rates. They must be written in French or in the language of the country of origin or destination. The use of two or more languages in the same message is prohibited. The sender must write before the address and pay the charge on one word for, the letters LCF, LCO or LCD, the same constituting his declaration that the message is intended for deferred transmission and is expressed in plain language of the country of origin or destination or in the international language of France.

The text of Deferred Half-Rate Messages must be written entirely in plain language, and figured trade-marks or abbreviations are limited to one-third of the chargeable text.

The Deferred Half-Rate Service is now in operation with most countries. Information in regard to its availability in particular cases can be secured on application at any Western Union or foreign telegraph office.

CABLE NIGHT LETTER SERVICE.—This form of service is predicated upon the use of cable facilities at times when they would otherwise be unemployed, and is designed for a class of plain language business and social communications which should not be subjected to the oversea mail's delay, but are not of sufficient urgency and importance to warrant payment of full tolls on the same. The charges vary, depending on country of destination and are based on a minimum of 20 words** (including the necessary prefix to denote the special character of the message). Cable night letters may be filed up to midnight for delivery the following morning, where cable night letters are in effect.

WEEK-END LETTER SERVICE.—This service is similar in all respects to the Cable Letter service, except that it is an over-Sunday service, instead of an overnight service. A minimum of 20** words (including the necessary prefix) is charged for, but the cost per word is slightly less than for a Cable Letter. Week-end Letters may be filed up to midnight Saturday for delivery the following Monday morning to points where week-end letters are in effect.

DISCONTINUED APRIL 1, 1933

* Effective October 1, 1929, pronounceability no longer required, however each ten letter code word must contain at least three (3) vowels.

Five letter code words without restriction as to construction $\frac{2}{3}$ of full word rate.

** Except Great Britain, Ireland, Belgium, Luxemburg and Germany, where minimum is 25 words.

**Cable Night Letter — Minimum to all places
now 25 words**

How Cablegrams are Sent and Received

ASK the average man what he knows about cablegrams, and he will probably reply that they cost like the deuce, or that a fellow moves a telegraph key over here and the man at the other end deciphers the message by watching a flickering light in a mirror, or something like that.

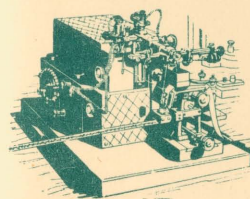
The facts are quite surprising; a cablegram can be sent from New York to Great Britain and Ireland for as little as three cents a word; and all cablegrams are sent by automatic devices as pictured below.



This shows a cablegram being prepared for transmission. A paper strip, perforated by operation of the typewriter keyboard, is then passed through the automatic transmitter at the left. The holes in the tape correspond to the dots and

dashes which are transmitted directly from the tape into the cable. Almost instantly the signals are recorded on a tape at the distant end of the cable. Cablegrams are regularly sent from New York to London and an answer received in less than four minutes. As many as four cablegrams may be sent and received at the same time over the same cable!

This shows a receiving operator at the distant end of the cable. A paper tape carrying a wavy line automatically passes from right to left before him at an average rate of two hundred and fifty letters a minute. This wavy signal line is deciphered as readily as you or I would read a line of type and is then typewritten on the standard cablegram blank. These skilled operators use the touch system and can decipher and type cablegrams all day long with amazing accuracy. You are cordially invited to visit the Central Cable Office at 40 Broad Street, New York City, and see the actual operation.



This is a close-up picture of the siphon recorder—a delicate instrument which automatically writes the wavy signal on a piece of tape, shown below. The vertical divisions are drawn in so that you may see how each letter is deciphered. Dots are represented by the undulations above the center line; the dashes below. The siphon that writes the signal is formed by bending a hollow glass tube no larger than a hair. This glass pen is moved by tiny currents sent into the distant end of the cable. As low as eight or ten volts will operate a cable. Contrast this with the voltage used on your radio set.



TIME CHART FOR CABLE USERS

Valuable in determining how fast your cablegrams are transmitted

To determine the time in foreign countries add the following hours and minutes to STANDARD CENTRAL TIME.

[illegible]

For instance—
A Cablegram

LONDON 10 22/320P
NUMBER OF WORDS
DATE
FILING TIME

The table above shows that 3:20 p. m. London is equivalent to 9:20 a. m. Chicago time, so that this message, if received in Chicago at 9:55 a. m., was 35 minutes in transit.

WESTERN UNION CABLE SERVICE