

ENGINEERING

Facsimile Transmission

► THE FACSIMILE method of transmitting telegrams and pictures over the wire or by radio waves seems destined to replace long-used methods which transmit electric signals which must be translated at the receiving end. Facsimile delivers to the receiver an exact copy similar to a photograph of the message or picture sent.

In the facsimile system the hand-written, typed or printed page to be sent is wrapped on a cylinder and rotated under a pointed beam of light that passes in successive lines from one of its ends to the other. Reflected light from the copy, which varies in intensity with the shades of the page, is picked up by an electric eye which sends electric signals to the receiver. Here the process is reversed. In older systems the signals were converted into light which recorded on photographic paper. Now an electrical recording paper is used.

Two types of facsimile systems, both already in use, were described to the American Institute of Electrical Engineers meeting in New York by scientists of the Western Union Telegraph Company. The first is the Desk-Fax, a one-foot-square transmitter-receiver for use on the desk of a business office. The instrument was explained by G. H. Ridings and R. J. Wise, Western Union research engineers.

Use of the machine is simple. The telegram to be sent is written or typed on ordinary paper of the proper size. It is placed on the drum of the machine and the outgoing button is pressed. The machine begins immediately to operate. When transmission is completed it automatically stops. The main telegraph office then has an exact copy.

Receiving a telegram with the Desk-Fax is equally as simple. Upon receiving a buzzer call, the patron places a receiving

blank on the drum. This is an electrically recording paper developed by Western Union and known as Teledeltos. A signal lets the main office know the machine is ready and the picture of the message comes in.

What is called High-Speed Facsimile, which will send picture messages any distance over wire or radio wave, is the world's fastest telegraph. It is capable of transmitting and recording in finished form 3,000 words of newsprint a minute. The system was described to the electrical engineers by C. R. Diebert, F. T. Turner and R. H. Snider, Western Union research scientists.

Science News Letter, February 2, 1952

MEDICINE

Atabrine Called Best Tapeworm Medicine

► "THE DRUG of choice" for treating patients infested by a tapeworm is atabrine, Drs. W. A. Sodeman and Rodney C. Jung of Tulane University School of Medicine, New Orleans, declare in a report to the American Medical Association.

Atabrine is the skin-yellowing anti-malaria drug used extensively in the beginning of World War II when quinine supplies were cut off.

The drug was effective in eliminating the tapeworm in 10 of 11 patients on the first trial and in the eleventh when the treatment was repeated, the New Orleans doctors report.

The atabrine pills were given two at a time with a little water every five minutes until the entire dose was taken. A purge of castor oil or Epsom salts was given the day before and two to four hours after the drug.

The patients were also put on a milk diet the day before treatment, but the doctors state they are not sure this is necessary. They used it because they were following the treatment method of a Latin American physician, Dr. T. G. Saccomanno, who reported good results of atabrine treatment of tapeworm infestation in 1946.

Details of the New Orleans physicians' use of it appear in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Jan. 26).

Science News Letter, February 2, 1952

SCIENCE NEWS LETTER

VOL. 61 FEBRUARY 2, 1952 No. 5

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc. 1719 N. St., N. W., Washington 6, D. C., NORTH 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

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Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C. under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STAtE 2-4822.

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