

TRANSATLANTIC HOUSE TO HOUSE RADIOTELEPHONY ACHIEVED

Conversation between people in their homes in and near New York and Boston, and people in their homes in London is the latest achievement of the American Telephone and Telegraph Company, which recently succeeded in carrying on a two-way conversation with London for the first time.

Previous tests have been from the long distance station of the telephone company in New York, with the voice carried over land wires to Rocky Point, Long Island, thence by radio to England, while the other end of the conversation came from England to Houlton, Maine, by radio and was then relayed over telephone lines by way of Boston to New York.

In the latest tests officials of the telephone company at their homes around New York and Boston, were connected by the regular telephone lines to the radio stations used in the transmission and receiving, while the people in London were connected through the central exchange there. At both ends, the ordinary types of telephone instruments were used.

WORKERS WITH UNPLANNED CAREERS RESTLESS, SURVEY SHOWS

The importance of charting out a definite course for a vocational career and then steering by it is shown by a survey of office workers who applied for jobs at a typical employment bureau. Results of the survey, just reported by Dr. Harry D. Kitson, of Columbia University, show the educational and job histories of 684 applicants for work.

The most striking fact discovered was that 40 per cent. of the men and 12 per cent. of the women were dissatisfied with their choice of occupation and wanted to change to other fields of work.

Dr. Kitson states that the histories of such workers as these, none of whom had had guidance in selecting or planning their careers, constitute a plea for educational and vocational guidance.

WASHED ANIMAL BLOOD MAY SAVE HUMAN LIVES

Important experiments on blood transfusion, made by Prof. Yourevitch and Mlle. Teleguina of Prague, appear to lead to the conclusion that special human blood donors will no longer be required in cases where transfusion is necessary to save a patient's life. The blood of a sheep or a cow might serve the same purpose, and special preparations of solution could be made in advance, and kept in bottles until required.

It has long been known that the most important point about blood in regard to transfusion is its specificity. That is to say, a rabbit can only be saved by the

injection of the blood of another rabbit. If the blood of a different animal is injected into its tissues, it dies immediately. In the case of human beings, blood has been divided into four groups. When an injection has to be made, the blood of the patient has first to be tested to see which group he belongs to. Only rare individuals of the fourth group can give blood to any of the others with beneficial and not dangerous results.

Prof. Yourevitch and his woman colleague have opened up an entirely new line of treatment. They separated the red blood corpuscles from the serum by centrifuging methods. They found that the poisonous qualities which on injection have such harmful effects are in the plasma, and that if the separation or "washing" is thoroughly carried out, the red blood corpuscles of an animal of one species can be injected into another without the slightest danger, but, on the contrary, with complete satisfactory results.

Rabbits which had lost an absolutely fatal quantity of blood could be saved by the injection of sheep's blood which would have been highly poisonous to them, provided only the washed red corpuscles were injected.

A rabbit which had received 10 to 15 cubic centimeters of unwashed ox blood died within five or six minutes. Another rabbit was given similar blood which had been partially washed, added to some of its own. After a period of serious prostration, it recovered. But a rabbit which had received only the red blood corpuscles of ox blood, which had been thoroughly washed, recovered completely without any detrimental symptoms.

It is confidently suggested by the investigators that in cases where human blood of the right group is not immediately available for transfusion, blood of any other group would be equally beneficial, provided only the washed red corpuscles were used. They also indicate that in their opinion blood of animals could probably be used in the same manner, if no human blood could be obtained.

It is further stated that a preparation of red blood corpuscles in a salt solution has been kept perfectly in bottles, and that there is no reason why such a preparation could not be made up in a standard manner, and stocked for use according to necessity.

AMERICAN WHEAT DISEASE TRACED TO RUSSIAN SOURCE

Wheat from southern Russia, brought to the United States for the purpose of pushing the wheat line west into the dry plains of Kansas and the Dakotas, smuggled in with it a troublesome disease known as "black chaff", according to report by Dr. Erwin F. Smith, which appeared recently in "Science."

The disease, which is of bacterial origin and manifests itself by a darkening of the husks and beards of the wheat, appeared in the wheatfields of the West several years ago. Nobody knew whence it had come, but since it grew in the hard-wheat area, most of whose grain was of recent Russian ancestry, Dr. Smith put forth the opinion that it had come in with the seed wheat. Recently his opinion has been confirmed, for the same disease has been found in a number of places in