GERMANS USE BICYCLE DYNAMO TO OPERATE RADIO SET.

The accompanying illustration shows an ingenious German method of generating the necessary electric current for operating a radio installation in the trenches, which was captured in a recent British advance. As the photograph shows, a tandem bicycle with its wheels removed has been fitted with a supporting frame so as to stand upright and the pedal wheels connect with a belt to a small dynamo.

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The Above Illustration Shows an Ingenious German Method of Generating Electricity for a Wireless Installation in the Trenches, Captured in a British Advance. A tandem bicycle with its Wheels Removed Has Been Fixt to the Ground, and the Pedal Wheels Connected by Belting with a Small Dynamo.

Such an outfit will produce considerable electricity which can be used for radio or lighting purposes, etc. In fact, this scheme is not new to the American wireless amateur, for we published an article on such a device for producing current to operate a wireless transmitter several years ago. A person sitting on a bicycle fitted with proper gearing, exerts a great deal more power than would be imagined off hand, and besides for warfare requirements the outfit is noiseless, albeit it is not quite so handy as the small gasoline engine outfits used by some of the other armies.

NEW TELESCOPING RADIO TOWER.

A device that promises to be of great importance to the field wireless service is a telescopic tower that can be rasied almost instantly on the throwing of a lever. This tower, the invention of R. W. Dean, of Des Plaines, Illinois, has been presented to the Government, says *The Oscillator*.

The tower that carries the wireless aerial works on an extremely simple principle. A number of light steel pipes fit inside of one another, the space between them being made air-tight by a series of washers at the top of each but the middle pipe. The base-pipe connects with a comprest-air reservoir which is always kept filled by an air-pump.

The operators turn on the comprest air lever. Air from the tank rushes to the top of the innermost pipe and pushes up on it with a force upward of twenty-five pounds for every square inch of its surface. The sections shoot upward, one after another.

Of the 8,000 girls who applied for service as military telephone operators with the American forces abroad 650 were accepted.

No Wonder the Naval Radio Students at "Harvard" Get a Headache Now and Then. Excuse Him, Folks, If He Don't Write Every Day. The Boy Is Busy! What?—Courtesy the "Oscillator."

Marconi Company Claims Famous "Static Preventer" Discovery

"With the conditions that pledged us to absolute secrecy no longer prevailing, the Marconi Wireless Telegraph Company of America is permitted to announce a discovery and invention in wireless telegraphy that will mark a new era in world communication," says a statement issued by Edward J. Nally, Vice-President and General Manager of the Marconi Wireless Telegraph Company of America.

"Ever since the genius of Marconi made wireless telegraphy a fact, the only limitation of this method of communication was the deadly phenomena of 'static conditions.'

"It remained for an American radio expert, Roy A. Weagant, Chief Engineer of the Marconi Wireless Telegraph Company of America, to discover the solution of the static problem.

"Among the revolutionary changes that the new system effects in wireless installations will be the immediate disappearance of the huge steel towers, heretofore built at great heights to catch the incoming wireless waves. Equipt with the Weagant invention, the wireless receiving antennæ are stretched merely a few feet above the ground.

"Heretofore, also, the increasing number of high power stations that were being erected in every part of the world raised the difficult question of 'interference.' Crossing wireless messages that shot thru the ether sometimes made the wireless signals so indistinct that they could not be understood, or drowned the weaker transmission entirely. The Weagant system, based on a unique selective principle, eliminates 'interference' and permits absolutely clear communication, regardless of the operation of other stations even in the immediate vicinity.

"The notable contribution to wireless telegraphy opened by Mr. Weagant's discovery makes continuous wireless communication over the oceans and between continents an absolutely assured fact for twenty-four hours of the day and at every season of the year, regardless of atmospheric conditions. All the Marconi high power stations are being equipt with the Weagant system, and the stations of the Pan-American Wireless Telegraph and Telephone Company, which are to link North and South America, will likewise be equipt."

This invention sounds almost too good to be true. However, Mr. Weagant, in an interview with the ELECTRICAL EXPERIMENTER's representative, stated that by very careful study of the subject over a considerable period, discovery of an entirely new basic principle had been made, and by accident at that. It was not expected, but while making investigations along other lines this particular effect became more and more noticeable until it developed into a full-fledged invention. "As soon as official 'Peace' is declared," said Mr. Weagant, "I will present a technical paper before the Institute of Radio Engineers, describing the invention. Also a body of technical men will be invited to one of our stations to hear it work."

SHIPS PERMITTED TO USE RADIO AGAIN.

Announcement has been made by the Naval Communication Service that commercial wireless traffic between United States merchant vessels and naval radio shore stations would be resumed at once.

This means that wireless messages may be sent to passengers on board steamships and that travelers at sea may communicate with shore.

During the war steamships were forbidden to use their wireless except to listen, the precaution being taken to prevent submarines and surface raiders from learning of the positions of Allied vessels.

OCTOBER MEETING OF INSTITUTE OF RADIO ENGINEERS.

The Institute of Radio Engineers held a meeting on the evening of Wednesday, October 9, 1918, in the Engineering Societies Building, New York.

A paper on "SPECIAL HEATING EFFECTS OF RADIO FREQUENCY CURRENTS," by PROF. EDWIN F. NORTHRUP of Princeton University was given.

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