

Wireless Course Indicator and Telegraph

In all prior systems of directed wireless telegraphy using interference effects among a plurality of transmitters, it has always been the case that in no direction is a sharply pronounced line produced that could be used by some distant mobile receiving station as a position marker.

And yet, the production of such sharply determined lines, which could be easily located even in poor weather or visibility, would be very desirable for the marking off of ships' tracks.

This invention produces such lines in this manner: two directional transmitters of equal intensity and wavelength A^1-A^2 and B^1-B^2 (Patent Fig. 1) are oriented at an angle to each other, and transmit signals alternately.

If the angle is chosen properly, the line of equal intensity for mobile stations is easy to recognize and is very sharp. Suppose, for example, the transmitter A^1-A^2 sends out short dashes and the transmitter B^1-B^2 sends out longer dashes, and specifically in a manner such that always one or the other transmitter is radiating, then the following effect results: A mobile receiving station that happens to cross the line of equal intensity will detect in its telephone receiver a steady sound; but as soon as the mobile receiver moves away even slightly from the marked line, the telephone reception changes immediately into separate signals of varying intensity. According to whether the one or the other kind of signal is stronger, one can determine on which side of the marked line one happens to be located, since one will know the general direction of the transmitting station.

Patent Fig. 2 represents the intensity diagram of two such transmitters, from which one can directly read off the great difference in intensity between the two transmissions that arises if the receiver is not on the marked line.

By means of a fixed receiving station located on the line to be marked, for example at the rear of the transmitting station, it is easy to monitor the direction of the marked line constantly.

If it is not desired to have any rearward effect of the transmitters, then one can, in place of the illustrated arrangement, set up transmitters that have a single direction of radiation.

If one adjusts the intensity of one or both transmitters, one can in this manner shift at will the direction of the equisignal (course direction) line. By means of corresponding combinations of different signals and different intensities, it is possible, moreover, with only one transmitting station, to set up a plurality of sharply characterized course lines.

Patent Claims

1. Wireless course indicator and telegraph in which two transmitters for directional telegraphy stand at an angle to each other, for the purpose of producing a line of equal intensity from both transmitters in common.

2. Wireless course indicator and telegraph, according to claim 1, in which the equisignal line may be shifted at will by adjusting the intensity of one or both transmitters.

3. Wireless course indicator and telegraph, in which by means of alternating variation in intensity of one or both transmitters, a plurality of equisignal position lines may be established at the same time.