A METHOD OF SECURING ACCURATE HIGH FREQUENCY STANDARD.

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In the Trans-Atlantic radio stations of the Radio Corporation of America, Alexanderson alternators are used to generate the high frequency current. The frequency of these alternators depends upon the speed of the rotor. This is regulated by automatic devices so the variation is less than two-tenths of a per cent. A recording device registers the speed every minute.

A radio receiving curcuit containing an oscillating three electrode tube can be tuned until the difference of the frequency of the tube and that of the alternator is some fixed value, for example, the frequency of a standard tuning fork. Then from the frequency of the fork and the speed of the alternator the frequency of the tube or local radio circuit can be obtained.

These Trans-Atlantic stations operate practically continuously. So the high frequency standard is always available. By arranging in advance the operators of the stations will take special pains to hold the speed constant and will send you the exact speed of the machine covering any particular period.

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