

to be a difference in pressure, whether it be in water or electricity, there will be a movement of flow...

When the current flows it must have a certain strength or force of flow. This strength is measured in amperes.

In all electrical conductors there is something which holds back the flow of current or offers resistance to it.

When we have a certain pressure setting a certain amount of current will flow through a resistor.

"ADAPTER" MAKES PHONE WIRES SERVE AS ANTENNAE FOR RADIO RECEIVING SETS

Puget Sound Telephone Company of Everett Offers to Patrons Use of New Device Invented by Seattle Man—Construction of Aerial Wires for Radio Reception May Be Made Unnecessary.



Inventor Wightman listening in by use of his radio adapter while an ordinary conversation is going on over the telephone.

PUGET SOUND BUREAU, Seattle, Wash., Aug. 12.—Construction of aerial wires for radio reception may be made unnecessary...

The national board of insurance underwriters, according to Mr. Wightman, has agreed to accept the use of aerial wires for radio reception...

WAVE ANTENNA TO COMBAT STATIC IS NOW BEING USED

Receiving Aerial of One Full Wave Length Necessary to New Process, Its Length Is Nine Miles.

Thousands of amateur radio fans, a majority of whom are realising for the first time what an interference static is to the reception of the various programmes...

Perhaps the chief means used by the radio corporation is in the type of aerial. This is known as the "wave" antenna, which in addition to reducing static interference, has greatly increased the efficiency of trans-Atlantic wireless telegraphy.

Distortion of signals in amplifier circuits is due to the characteristics of the vacuum tubes used and careless operation, according to experts connected with one of the largest vacuum tube distributing concerns in the country.

Carless Operation May Distort Signals. Characteristics of Vacuum Tubes Also May Be Cause.

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It is best to mount the binding posts on the rear of the panel on fiber strips. The large meter holes may be drilled with a regular expansion bit.

First smooth the wood off with sandpaper; then purchase a pint of dark metal primer, such as is used by automobils.

A wooden panel is not recommended for an amplifier.

Radio Notes.

ARRANGEMENTS have been practically completed for the erection of a broadcasting station in New York city which is to represent the most advanced state of the art of radio both technically and in the entertainment sense.

On the roof of Aeolian hall, in the heart of New York city, which is to be the site of the new station, two 100-foot towers with a 200-foot aerial will be suspended 180 feet above the earth.

The station will transmit simultaneously on two wave lengths from the same aerial, but from separate studios. The two stations observed in the majority of radio audiences will in this manner be served.

The aerial and the ground connections possess what is known as distributed inductance and distributed capacity, whereas coils and condensers possess concentrated inductance and concentrated capacity, respectively.

Efforts to produce radio-controlled tanks appear to be the very latest step in government radio work for the army and navy.

Today one out of every eight or ten army tanks has a radio transmitter and receiving set, enabling the marine corps material to date no definite plan has been evolved by radio engineering experts.

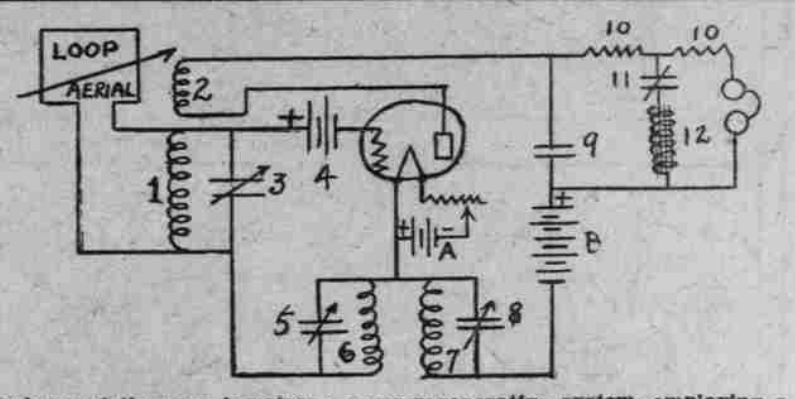
The cost of radio messages a word, postal officials assert, is less than one-eighth of a cent.

Bakelite and formica are the best materials for panels, but they are expensive, and when it comes to messages from several hundred miles, job presents itself.

Before purchasing a Radio set consult an established radio store where you get the benefit of years of experience and service afterward.

HOOKUP OF NEW ARMSTRONG SYSTEM IS VERY SIMPLE DEVICE

Super-Regenerative Receiver, With Amplifications of 100,000 Can Be Obtained, Not Difficult to Install.



Hook-up of the new Armstrong super-regenerative system, employing a single vacuum tube only. The constants of the circuit are as follows: 1-Primary of vario-coupler.

SEVERAL hookups of the new Armstrong super-regenerative receiver, with which amplifications of 100,000 can be obtained, already have been given out to the radio amateurs of the country.

Practically the same action can be obtained with one tube only, according to Armstrong, the inventor. The one-tube circuit requires very careful handling by the experimenter.

The two large duo-lateral coils must be in inductive relationship with each other. It should be found that this relationship is very critical and the greatest possible care must be taken in obtaining the correct amount of capacity in the two condensers 5 and 8.

When adding a second, and more often a third, stage of amplification, there is sometimes considerable whistling or howling, together with a rasping, scraping noise.

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RADIO QUERIES AND ANSWERS

Editor Radio Waves and Replies: 1. Would you kindly oblige me by drawing a hook-up of a super-regenerative set consisting of two vacuum tubes, a variable capacitor and one stage of radio frequency?

Editor Radio Waves and Replies: 1. When I connect my receiver to the aerial and the ground there is a continuous humming. What is this and how is it cured?

Editor Radio Waves and Replies: 1. I have made a variometer with 30 turns on a 1/2 inch diameter core with this set. The distance is 23 miles. Can a good variometer be made if so, how, and how is it set up?

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Loudness of Signals Due to Amplifier Voltage.

Careful Experimentation Only Will Bring Good Results.

WORDS to the amateur on amplifier. Using a two or three-stage amplifier, it must be remembered that the loudness of the signals depends upon the voltage used in the plate circuit of the last stage.

This voltage depends upon the type of tube used. Some tubes will stand from 150 to 200 volts on the plate circuit before they will operate at a maximum when used as amplifiers.

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