



Several Ways of Improving Receiving Tuners

By R. M. SHERRILL (Radio Engineer)

The tuning part of a radio receiver is composed principally of capacity and inductance, usually in the form of condensers and coils of wire.

The ordinary variable condensers which are used in so many receivers are very inefficient and cause broad tuning and a loss of signal strength.

Their products advertised as "low loss condensers" are now on the market. Naturally, these condensers cannot be made as cheaply as the more common type, but their performance is well worth their higher cost.

The combination of the low-loss condenser and this improved inductance will not only help in cutting out interference but will very noticeably increase the signal strength.

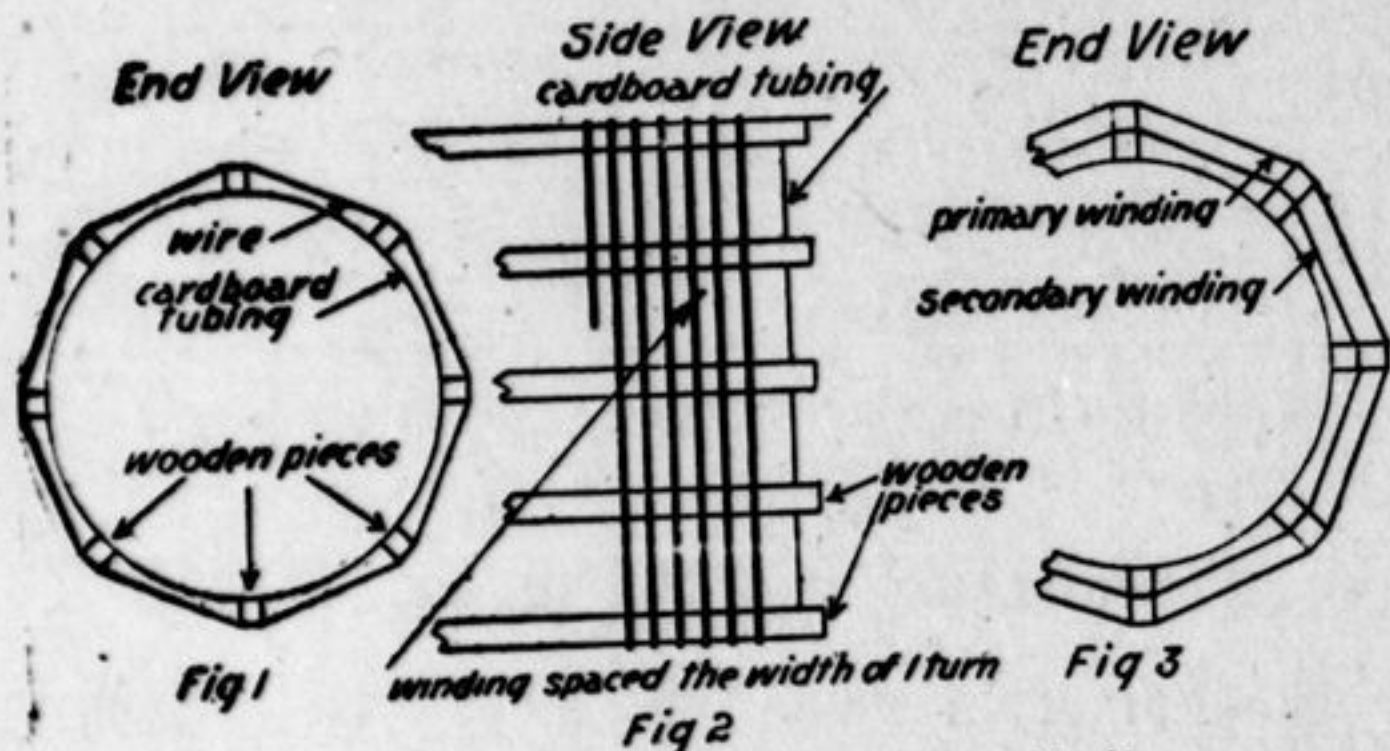
There are a number of other suggestions which will help to improve the receiver. Fixed condensers such as grid and "by-pass" condensers should be carefully chosen. The best of these are made of mica,

wire on the form at the same time. The wires are wound on evenly until the form is full. Then one of the wires are carefully unwound, leaving the other to form a neatly spaced winding.

In cases where there is a fixed coupling between two coils, another set of wooden pieces may be added, and the second winding put on as in Figure 3.

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A Better Method Of Winding Coils

and the inferior ones of paper and other materials.

When connecting the various parts of a receiver, use a soft copper wire that is just stiff enough to hold its shape well.

Separate the connecting wires from each other as much as possible. This applies especially to the grid and plate wires of the tube sets.

It may be expected that any one of the above suggestions will not by itself cause much improvement. When a number of these small points are taken care of however, the total effect will be gratifying.

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RADIO QUESTIONS AND ANSWERS

Mr. Sherrill will be glad to help you solve your radio problems. Write him, care of The Durham Chronicle.

W. E. asks: "How can I test my crystal detector adjustment when I am not sure whether any stations are going or not?"

Ans.—You can connect a buzzer with a key and a dry cell, and when the buzzer is operating, adjust your detector until the loudest buzzer signals are heard in the head phones.

C. D. P. says: "I very often see the same circuits drawn in different ways in respect to the A and B battery connections. Some show the two negatives connected together and some show the A + connected with the B —."

Ans.—Connect wires to your two terminals and dip their ends into a glass of salt water for a few seconds. The wire from which the bubbles are given off leads to the negative terminal of the battery.

which way is the better?"

Ans.—When the A + and B — are connected together the voltage of the battery is added to that of the plate battery. The practice of connecting the two negatives together is considered better however, as this excludes the A battery from the plate circuit.

A. D. B. says: "I bought a flashlight battery to use as a C battery but I cannot tell which terminal is the negative?"

Ans.—Connect wires to your two terminals and dip their ends into a glass of salt water for a few seconds. The wire from which the bubbles are given off leads to the negative terminal of the battery.

CANADA'S ADVANTAGE

Sir Adam Beck declares that the people of this province are not yet sufficiently alive to the importance of securing their full privileges in the matter of water-power development. Unless further action is taken, he foresees the time, not many years ahead, when industry will be handicapped by a serious shortage of power.

taking the average over the last five years for all purposes. In view of the colder climate, the fact is the more remarkable. The difference is attributed mainly to the saving in coal due to the greater utilization of the water-power resources of the Dominion. The water-power development per thousand of population is given as 350 horsepower for Canada, as compared with only 95 horsepower in the United States.

INTERESTING FACTS

A droye of "floating islands" has been encountered off the coast of Borneo. The Armenians cover a new-born infant's skin with finely-powdered salt. A cod caught off the Newfoundland coast was 5 feet 6 inches long and weighed 60 pounds. A cat owned by a resident of Wandsworth, England, is fostering a brood of chickens hatched in an incubator.

LINCOLN'S TURN TO READ

There was something in the application of President Lincoln's stories that brought all the humor in them. In Something of Men I Have Known Adlai E. Stevenson passes on a story that he heard from the Hon. John B. Henderson. During the gloomy period of 1862 Mr. Henderson called on the President late one Sunday afternoon and found him alone in his library.

After some moments Mr. Lincoln, apparently much depressed, said in substance: "They are making every effort, Henderson, to induce me to issue a proclamation of emancipation. Sumner and Wilson and Stevens are constantly urging me, but I don't think it best now; do you think so, Henderson?"

To which Henderson promptly replied that he did not think so; that in existing conditions such a measure would in his judgment be ill-advised and possibly disastrous. "Just what I think," said the President, "but they are constantly coming and urging me, sometimes alone, sometimes in couples and sometimes all three together, but constantly pressing me."

With that he walked across the room to a window and looked out on the avenue. Sure enough, Wilson, Stevens and Sumner were to be seen approaching the Executive Mansion. Calling his visitor to the window and pointing to the approaching figures, he said in a tone expressing something of that wondrous sense of humor, which no burden of disaster could wholly dispel: "Henderson, did you ever attend an old field school?"

Henderson replied that he had. "So did I," said the President; "what little education I ever got in early life was in that way. I attended an old field school in Indiana, where our only reading book was the Bible. One day we were standing up reading the account of the three Hebrew children in the fiery furnace. A little tow-headed fellow who stood beside me had the verse with the unpronounceable names; he mangled up Shadrach and Meshach woefully and finally went all to pieces on Abednego. Smarting under the blows that in accordance with the old-time custom promptly followed his delinquency, the little

fellow sobbed aloud. The reading, however, went round, each boy in the class reading his verse in turn. The sobbing at length ceased, and the tow-headed boy gazed intently upon the verse ahead. Suddenly he gave a pitiful yell, at which the schoolmaster demanded: "What is the matter with you now?" "Look there," said the boy, pointing to the next verse; "there comes them same darn three fellows again!"

NEW SCHOOL BOOKS

After being in use some fifteen years, the third and fourth readers of the public schools of the province will be changed after the coming year. The public school speller and public school hygiene will also become obsolete. Word has been received that there will be no change in public, separate or high school text-books during the coming year.

The popular chocolate tinted covers of the readers will pass out to make way for the newer publications. At the same time, German readers will become obsolete, though no explanation for this move is given. The high school

English grammar and arithmetic will also be revised. Revision of the teachers' manuals at an early date is contained in department advice. The noted public school geography, issued just a year ago and of which so much criticism was made, is now reported to have been partially corrected.

Animal breeders in East Africa have developed a new beast of burden, a cross between a horse and a zebra.

All Our Graduates

have been placed to date and still there are calls for more. Get your course NOW. If you do not get it you pay for it anyway in smaller earnings and lost opportunities.

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R.R. No. 4, Durham. Phone 98-12

Progress or Reaction Ontario Electors Must Choose

THE issue of the Plebiscite of October 23rd is: Shall the sale of intoxicating liquor as a beverage continue to be prohibited, or the traffic be re-established and conducted by the Government? Since September 16th, 1916, the legalized sale of liquor for beverage purposes has been prohibited. During eight years the Ontario Temperance Act has wrought a moral, social and economic transformation, gradual but real.

Do You Remember?

The old-time Bar-Room and Liquor Shop, with their disgusting sights and sounds and smells;

The staggering, cursing, drunken men who jostled us on the streets and on the cars—particularly on holidays or at public demonstrations—and who filled our jails;

The poor, battered, bedraggled hulks of men and women—God's children, our brothers and sisters, every one of them;

The destitution, misery, wretchedness, squalor, filth and disorder in many hovels that might, and should, have been homes;

The vice, the immorality, the crime, the debauchery, incited by liquor, that appalled good citizens.

The O.T.A. Has Made Good

Contrast those conditions with the situation today. The Ontario Temperance Act has brought immeasurable improvement. Drunkenness has decreased. Crime has been lessened. Homes are happier. Children have been given a better chance. Savings Bank deposits have increased. All down the line, PROGRESS has been written into the history of Old Ontario!

OFFICIAL RECORDS PROVE ALL THIS!

The following table shows that, in Ontario under the O. T. A., there has been a substantial decrease in the offences that are usually associated with drink:

Table with 3 columns: Offence, 1914, 1922. Rows include Assaults, Cruelty to Animals, Vagrancy, Keeping and Frequenting Bowdy Houses, Loose, Idle and Disorderly Drunkenness.

NOTE THE OPINION OF OUR MANUFACTURERS:

"Does Prohibition, under the O. T. A., result in more comfortable homes and better supplies of food and clothing for wives and children?"

When this question was asked of leading Ontario manufacturers by the Ontario Board of License Commissioners, 1,165, or 82 per cent., answered "Yes", while only 239, or 17 per cent., said "No."

All Systems of Government Sales Have Failed

So-called "Government Control" has proven a dismal failure wherever tried. Drinking, drunkenness and bootlegging have reached appalling proportions. Every Canadian Province that has tried any form of "Government Sale" has already learned a hard lesson.

Take BRITISH COLUMBIA: Hon. H. H. Stevens, M.P., in a public address in Vancouver recently, declared:

"Never, in the history of the country, was bootlegging comparable in magnitude and murderous results to what it is today."

Or, MANITOBA: Figures furnished by the Chief of Police of Winnipeg show an increase of 45 per cent. in the number of

For the Honor of Old Ontario mark Your Ballot thus:

Ballot box with instructions: 1. Are you in favour of the continuance of The Ontario Temperance Act? 2. Are you in favour of the sale of liquor as a beverage and of the spirituous liquor in sealed packages under Government control?

drunk and disorderly cases in the first five months under Government Sale, as compared with the corresponding five months of the previous year under Prohibition.

And, finally, QUEBEC: The following resolution was unanimously adopted by the Presbytery of Montreal, April 15th, 1924:

"That we regard it to be a patriotic duty to make it known that the drug traffic flourishes here as never before and is on the increase, bootlegging flourishes in and from this Province as never before, that drunkenness is on the increase and that the Quebec system of Government Control is socially injurious and not a success."

Ontario Must Hold the Line

If a majority vote for "continuance", it means that we will have a better law more effectively enforced, with correspondingly improved results. The Government, through the Prime Minister, has definitely pledged itself to "strengthen" the Act and "give it active and vigorous enforcement."

If a majority vote for "Sale", it means the re-establishment of the old, discredited Liquor Traffic, in the guise of respectability under a system that makes the Government the bartender and every citizen a partner, acting as sales agent for the brewers and distillers and making profit for them out of the destruction of life and happiness.

The Ontario Plebiscite Committee, uniting the temperance forces of Ontario, calls upon all who love their Province and wish its continued and increasing prosperity and the happiness of its people to VOTE FOR THE LAW that has accomplished immeasurable good, and not for a return of the traffic that has wrought such havoc in the past, and would do it again.

The Ontario Plebiscite Committee

2 Toronto Street, Toronto

G. B. Nicholson, Chairman



October! Glad The month When Chris "Mud on his This western Estate, includ Liberty and t Hip! Hip! Hig Yes, Chris, li Then, that th Section of th Be willing— To pay Of ben Sardin Pack- Street Or, that— Nothing Except Even Garage And, that— Fifty Would Of lan Few h Up th And, that— A cert Men w With Powde Suits Or, that— That Young Some

OH FER TH' LOV SHADE OF CHRIS COULDRON

See by the papers white enameled, cracking some of them. Off in the stilly "Many a rough FRANKLIN. Yes, slippery paths PRE-ELI We se All W We tu Sam We je Aga We ju G-r "Oh, We All out! Closing