When Your Set Stops

Look for the Cause

Don't Go Without Music

A Synopsis of what *Colin W. Smith* told 2YA Listeners

ALTHOUGH the title of my talk may sound somewhat foreboding, I would like to assure listeners right from the onset that I am not going into technicalities. I know perfectly well that grid-leaks and by-pass condensers and oscillations and regeneration are frightfully confusing to the average listener who wants merely to turn a switch and listen-in. But although radio is so simple there are yet many things that can go wrong, and the listener himself can attend to without calling in a service man.

The natural starting-point for such a discussion is when the set does not start when it is turned on. Now there are very many different classes of "silences," as we might term the fault, and you must first determine which kind it is. If there is no light behind the dial and no humming in the speaker, the electricity is not getting to your set. Turn on your light switch, and if your lamps do not light you will know the trouble is not in your radio. If they do, then one of two things has happened—either your fuse has been blown out, or something is not making contact. To test if it is the fuse—fit some other electrical device into the socket and see if it goes. In this manner you can soon find out if the trouble is readily apparent.

Now we will suppose that the dial light showed when the set was switched on, but there was no hum or live sound. This means that either one of your valves has gone, or that the rectifying valve is not functioning. The rectifying valve is the one which has two plates, and what appears to be two filaments. See if this is lighting, and if it is not it must be replaced.

If this is in order, then remove the shield from the valves, and see if they are all lighting. If everything appears normal you cannot do very much more than call in a serviceman. Please remember that you must not take on anything more than superficial examination yourself. Listeners should not attempt to make inside adjustments to their radios, for not only are they likely to get a very severe shock, but the regulations will not allow any unlicensed to interfere with an electric set. You can quite safely touch any metal part of the set when it is in operation, providing all the shields are in position, so do not be afraid to interfere with the aerial or the earth.

Many people do not take sufficient care to see that their aerial and earth are in good condition before contacting a dealer and asking him to examine the set. I know of cases where a dealer has had to go many miles to turn on a switch. It is the easiest thing in the world to see that aerial and earth are connected and that they are not touching anything they shouldn't touch.

Much that I have said for the electric set can be said for the battery set, but the main causes of trouble are the batteries. They run flat fairly quickly and although a set may be going reasonably well one night it can refuse to go when turned on the next just because the batteries are in poor condition. Many will notice that when the battery set is turned on it goes satisfactorily for a while and then drops rapidly. This is because the rest has allowed the battery to somewhat recuperate, but it is nevertheless quite done. Another common fault are the connections left off, or put on wrongly, while the separate speaker is not past giving trouble. Transformers are not as much trouble as they are supposed to be and they are often renewed when they are quite good.

If you have a lightning arrester of the cheaper type and have this installed outside, then it can quite easily cause trouble by allowing the water to seep through and cause a bridge between aerial and earth.

Weak Signals.

THE next cause of dissatisfaction in a radio set is weakness. In the modern a.c. set this is usually due either to a fault developing in the aerial or the earth systems or a defective valve, usually the screen grid. This type of valve is a highly complicated piece of mechanism and is not without weaknesses. It is not a bad plan to have an extra one on hand and if the set suddenly becomes weak to try it in the position of each of the valves to see if it will improve matters.

When valves have been in operation for about 1500 to 2000 hours, I am speaking now of the modern valve, they begin to weaken and the entire set should be replaced. Now you will be surprised how quickly 2000 hours can run away. Just count up the number of hours you keep your radio set going each week, and I am quite certain you will be surprised. When replacing valves it is not always necessary to use the same make of valves as before. We must all admit that some valves are better than others and it is not a wise plan to buy cheap valves thinking you are getting a good deal. You are not; you are getting a decidedly bad one, for not only do cheap valves have a short life, but they are what we call patchy; that is, minor defects show up in them and they unbalance the set. Just inquire from your dealer what he considers the best makes before making any replacements.

The same is true for the battery set. Almost every year sees the introduction of new valves, that will probably suit your set quite well, and you should inquire either from a dealer or from someone who is conversant with these matters before replacing.

Of course there are other causes of weak signals than valves, and I could talk for quite a long time about unbalanced circuits, grid-leaks and condensers, transformers, by-pass condensers and such like, for all these can very easily affect the volume of reception, but I know most of my listeners are not interested in such technicalities and I have no intention of stressing them. Anyone who is interested enough to want to delve into his set should drop me a note.

I do not want to stress unduly the aerial and the earth because I have said quite enough about that already, but I think most folk will realise that this can be a very strong factor in deciding whether your signals will be strong or weak. For those who use battery sets, too great a filament voltage is as bad as too little.

Distortion.

ONE of the most annoying troubles in these refined days is distortion. I mean by distortion that the sounds you receive are being made very different from the natural sounds.

Probably most listeners when they first buy a powerful set wonder why they cannot get the local station well. They find that when they turn the volume down the quality is very poor

Popular Radio Producer on Tour

To Appear from Three Southern Stations

MR. J. F. MONTAGUE, of Auckland, who will broadcast from the three southern stations—2YA, 3YA, and 4YA—during January, desires us to broadcast a message to his many known and unknown friends on the air.

"I am looking forward with unfeigned pleasure to my visit to the south, and I desire to express my thanks to the Broadcasting Company for affording me the opportunity of speaking to such vast audiences, from many of whom I have received messages of thanks and encouragement in the past. I do not know, of course, what other artists may think, but for my part, I always consider I am greatly privileged in being permitted to speak before the microphone.

"I have taken great pains to arrange my items so that they may appeal to the greatest number of listeners—there will be something for every taste, I hope. Farcical comedy, light comedy, dramatic scenes and sketches, selections from Shakespeare and other classics, and one Maori scena—'The Battle of Orakau'—will be presented. I hope to produce at Dunedin the great tragic sea story 'Galapagos,' with its wonderful musical numbers. Among my selections will be several never before given on the air, and some 'old friends' in a new dress. Ladies and gentlemen, my respectful greetings to you. I hope that I may give you pleasure."