Children's Sessions

AT 1YA.

TUESDAY, OCTOBER 16.—Uncle George in charge and with him a visitor who will take you round the farm yard and imitate the different occupants of the farmyard. Look out for lots of fun.

WEDNESDAY—Uncle Tom with us again, with more amusing songs and stories. Cousins will assist and there will be birthday greetings and the radio postie.

THURSDAY—Peter Pan has the Gramophone Man with him, giving records and a little talk about them. Uncle Charles will also be there with stories to tell and cousins will sing and recite.

FRIDAY—Another night with Nod and Aunt Jean, who will keep you amused, and some more of our cousins will play. There will be greetings for the little ones' birthdays.

SATURDAY—The clever little pupils of Miss Dorothy Griffiths will entertain to-night with dialogues and sketches. Aunt Dorothy will tell you about Honolulu and Cinderella will have stories to tell.

AT 2YA.

MONDAY, OCTOBER 15—Uncle Jeff and Aunt Gwen this evening. There will be birthday greetings and some good-night stories and a bright little programme from Mrs. Mildred Kenny's Juvenile Band.

TUESDAY—Big Brother Jack to-night. Greetings and a bed-time story. The pupils of Miss Agnes Wright are coming and with them will be Cousin Marjory who will sing, and dear little Cousin Kathleen who loves to recite.

THURSDAY—Aunt Gwen will tell how old you are to-night and Uncle Pepper will tell some more true stories about the South Pole. You know, he has really been there. And last but not least you will enjoy some jolly choruses by the Evans Bay Sea Scouts, under Mr. H. Warren.

FRIDAY—Uncle Ernest with his cheery greetings and wonderful stories, and the Cheerio Girls whose singing always gives so much pleasure. What a cheery evening we will all have.

SATURDAY—Uncle Toby and Aunt Gwen will talk to-night about birthdays and perhaps read a story and give a song. Cousins Betty and Molly have a little entertainment to give, too.

SUNDAY—Uncle Ernest will conduct the children's song service, assisted by St. James Presbyterian Sunday School Choir under Mr. Brooker.

AT 3YA.

MONDAY, OCTOBER 15—Scatterjoy will tell her little friends all about the Dreams and Pans of little people.

WEDNESDAY — To-night "Uncle Alf" will create a real surprise for you.—Who is Uncle Alf? Well you just listen in and hear! Cousin Ken and his banjo, and Cousin Edith and her recitations will make you happy and bright.

THURSDAY—Chuckle, with his friends, Victor, Evelyn, Grace and Betty, will keep you wondering just what else they have in the box of items to make you want more.

FRIDAY—Big Brother and the boys from the Marist School on deck with songs, stories and fun. Right in the middle of the ship, where the fun'll be! (What do you think of that?) Oh! and "Peterkin," too, will be with us.

SATURDAY—Aunt Pat and some of Miss Cowan's pupils will delight you with songs, dialogues and music. So listen in this Saturday night.

SUNDAY—Uncle David conducting the Children's Song Service, and the scholars from Oxford Terrace Baptist Sunday School, singing the hymns.

AT 4YA.

TUESDAY, OCTOBER 16—Egypt, the country of the sphinx, of pyramids, of hillside graves filled with treasure—that's where we go to-night. And the boys from the Anglican Memorial Home will sing choruses on the way. The radio postie and birthdays while we're travelling.

FRIDAY, OCTOBER 19—Miss Winkel's pupils are on the air to-night to amuse and entertain the family. Aunt Shiela and Big Brother Bill will be on the air, too. This time the "Time Scooter" goes to some of the queerest islands in the Pacific Seas. On one of them a Spanish treasure galleon was wrecked on its way to Cadiz in the time of Francis Drake. They do say that some of the treasure was carried ashore and hidden. There are queer places where it could be hidden, anyway. We'll all go and see. And the letters, birthdays, and the radio postie will

In Trouble

A Batch of Questions

A CORRESPONDENT writing from Cromwell submits a batch of questions which are dealt with in these columns as the matters raised are of general interest. [A query regarding the "Southern Cross" generator was dealt with in our article on that subject.]

"DIOGENES" (Cromwell) writes:—

I have discovered a circumstance which seems decidedly queer. I can disconnnect the battery end of the B positive lead from my detector valve (on Browning Drake 4), and the set will produce 2YA on the speaker though not so loud. If I take the H.T. wire off the valve socket it stops. With three volts on the plate of the detector I can get all the volume I want on 2YA. Into the bargain my aerial is bad and the earth rotten—in fact, I can get as much volume without the earth—though the set is less stable.

I notice some of your correspondents from Christchurch have been feeling proud of themselves over picking up 3YA's broadcast of 5SW on the signing of the Peace Pact. It came in quite well down here, and was intelligible in the initial stages, though 3YA seemed to be having some difficulty in keeping the station tuned in later on.

I would be pleased if you could identify a Morse station for me. It is operating on a somewhat shorter wavelength than Awarua (600 metres), and was sending a succession of V's interspersed with occasional variations which we could not decipher. It has a high, squeaky note, and goes fairly fast, though not so fast as Awarua.

I have a Philips latest B and C eliminator, and have been storing up a list of questions in connection therewith. If you could enlighten me on the following points I would be greatly obliged:

1. Does it harm the eliminator to be left connected to the power when the A battery is turned off, and how long can it safely be left?

2. What voltage will the plugs put out on a Browning Drake 4 containing a Philips 609A, Alton 201A, Radiotron 201A, and Philips 605B?

3. Can any device be put in the detector lead to make variations in the voltage at will?

4. Can I drive the detector off dry batteries and the rest off the eliminator, using the same negative lead with two terminals?

5. I get a slight AC hum no matter how I arrange matters, and it is the same with or without bi-pass. Can this be avoided?

6. Often but not always when the set is on the verge of oscillation it breaks into an intermittent popping—not motor boating, but what motor boating would be like if the pops were spaced about a fifth of a second apart. The popping is not regular and the set does not do it on dry batteries.

7. By turning the reaction off and turning up the rheostats I can produce a heavy drumming sound like a powerful motor. What is this?

8. Does the eliminator need a good earth or will any old thing do? Does it matter if eliminator and set earth are run together away from the set? Mine are entirely separate and both bad.

9. Will a Philips safety fuse work on an eliminator lead?

10. Does it harm the eliminator to run the set off dry batteries and the grid bias off the eliminator?

I thank you in anticipation of your reply to this list of inquiries.—Diogenes (Cromwell).

In Answer.

STATION 2YA having such great output can be brought in with a minimum of voltage on the valves. In this particular instance when the positive B was removed from the battery a certain amount of audio frequency current could filter back to the plate of the detector. When the plate terminal of the socket was disconnected this was impossible, so that the path of the impulses was broken.

The Morse station was in all probability a ship and cannot be identified without the call letters.

The queries on the Philips 3003 B. and C. eliminator, on being referred to that house, are answered as follows:—

(1) Practically no harm occurs to the 3003 B. and C. unit through the eliminator remaining connected to the power supply with the A battery switch disconnected. The rectifier filament burns, but this does not reduce its life, owing to emission ceasing. True, an increased voltage strain is placed on the filter condensers, but these are very robust and very rarely give trouble. Eliminators have been left for days. It is, however, recommended that the eliminator be switched off at the same time as the set. (2) The voltage delivered at the plugs depends on the total milliampere draw and the draw on each plug. A printed sheet goes with the Philips' 3003 Eliminator explaining this fully. Querist should use tap 1 for detector, tap 2 for the R.F. valve, tap 4 for the first a.f. valve, and tap 6 for the power valve. Under these conditions the first a.f. valve would have approximately 90 volts on the plate and the bias should be 4. The 605 would have 180 on the plate and the bias should be 20 to 25. (3) A high variable resistance such as the 50,000 ohm Centralab can be placed in series with the detector tap. The Centralab should be bridged with a condenser of at least .006 mfds. capacity. (4) Yes; you can use dry batteries on the detector valve using a common negative lead. This gives perfect results on short wave regenerative sets. (5) The hum you get is almost certainly due to a poor eliminator earth. No hum should be audible, only the usual soft "breathing" of the set. A poor set earth can cause a hum. (6) The "popping" experienced at times is due to rather high voltage on the detector; see reply to No. 3. (7) The drumming sound you mention is apparently due to some peculiarity in your set, and not to the eliminator. (8) A good earth is desirable for the eliminator. The only legal earth is one attached to the wiring conduit through the third pin of the 3-pin plug which regulations lay down must be used. See also answer to No. 5. Separate earths should be used. (9) The Philips safety fuse can be used with an eliminator. It may be noted that this eliminator has a very valuable safety feature limiting the total current that can be supplied on short circuit. It would be impossible to burn out your present set of valves by connecting the full eliminator voltage directly across the filament battery terminals. (10) It is impracticable to use only the bias voltage from the eliminator and no sound reason can be seen why the querist should desire to attempt this.