Children's Session

4YA Advisory Committee

A THOROUGHLY representative meeting of ladies and gentlemen interested in child welfare organisations was held at the 4YA Studios, "Evening Star" Building, on November 21. There were present Mrs. C. de R. Andrews (Provincial Commissioner Girl Guides' Association), Sister Nora (Society for the Protection of Women and Children), Miss Telfer (Presbyterian Social Service Association), Rev. Cooper (Anglican Boys' and Girls' Homes), Rev. Bro. O'Connor (principal Christian Brothers' School), Mr. T. Williamson (secretary Headmasters' Association), Captain Chandler (Salvation Army), Pastor W. D. More (Big Brother Bill, 4YA), Mr. George Palmer (Uncle George, 4YA), Mr. Allan Young (Uncle Allan, 4YA), Miss Anita Winkel (Aunt Anita, 4YA), Miss Beardsley (general secretary, Y.W.C.A.), Mr. John Ball (of the Broadcasting Company headquarters), and Mr. J. Mackenzie (station director). An apology for absence was received from the general secretary of the Y.M.C.A.

Mr. Ball, representing the Broadcasting Company, and acting as chairman, introduced the business of the afternoon by outlining the field of radio activity, its programmes, and the method of putting them over the air. Introducing Pastor More (Big Brother Bill), the chairman asked him to tell those present just exactly what took place before the microphone at the children's session.

Big Brother Bill stated that it was somewhat difficult to say just exactly what happened in front of the microphone, as in a sense most of the work was done before they got to the microphone. Arrangements are made with different organisations and different individuals, and if possible children's organisations, five or six weeks ahead. Big Brother Bill paid a tribute to the work of the uncles and aunts, some of whom were present.

The chairman also added his tribute to the work of the aunts and uncles, who were giving much appreciated and gratuitous service at the different broadcasting stations in the Dominion. "They attend at regular sessions, they give freely of their time and talents, but they have a wonderfully rich reward in the appreciation of thousands of children they do not know."

An opportunity was given the meeting by the chairman to ask questions upon the work of the children's session, and a motion was carried unanimously (moved by Pastor More and seconded by Mrs. Andrews), "That those present constitute the Children's Session Advisory Committee of 4YA, and that this committee includes subject to the approval of the organisation it represents, those who were invited to but who were unable to attend this meeting."

The "Tramper's Two"

Final Instalment

DRILL two holes 3½in. from the top edge of the case and underneath the tickler shaft. This will accommodate the aerial and the earth terminals. It will be found easier to attach the terminals and then bring out the wires from the set rather than attempting to solder them from the inside.

The remaining connections shown in the layout diagram should now be made, by joining the long wire attached to the grid coil to the fixed plates of the variable condenser and the wire attached to A+ to the moving vanes. Top of the tickler is connected with P of the audio transformer, which is connected with one side of a .0005 fixed condenser by a piece of glazite wire. The other side of this condenser is connected with B+ of the transformer, to which connect a fairly long piece of double cotton-covered wire and passed through the hole for this purpose; this is B+ detector. G of the audio transformer joins with G of the audio valve socket. GB is to be attached to the grid bias battery, the position of which will be described later.

P of the valve socket being one of the output terminals passes to a phone jack. To mount this drill a hole about 3in. on the side of the case opposite the tickler and mount a filament-break jack. This is not shown in the theoretical diagram, but it is essential to disconnect the batteries when the set is not in use. The second jack limb connects with B+. From the A+ of the valve socket take a wire to one of the filament contacts on the jack. The other filament passes through a hole in the partition to A+ B—.

The Batteries.

THERE is little to choose from among these, for in order to fit into the small space they must comply with the measurements given. The "B" block, the Lissen, has been found very satisfactory by the writer. It has the advantage of having very many tappings, so that the voltage for the detector may be accurately obtained.

The most efficient "A" battery is built up from torch cells. Nine of these are wired in series parallel in the following manner:—Divide them up into groups of three and solder a strip of brass, tin, or other convenient conductor round each group to bind them tightly. Along the brass caps solder another strip. Place a piece of insulating material, e.g., waxed cardboard, between each group of three, and fasten all by some non-insulating substance, string or cord, into a compact group of nine. There will now be six projecting strips, the ends of three negatives and the three positives. Leave the first negative strip free. Connect the first positive strip to the second negative strip—the second positive strip to the third negative strip and the third positive strip is free. This is A+ and the other free terminal A—. This compact block should fit in to the space at the side of the "B" battery, which is placed in the case with the wander plugs outwards.

HAVING fitted the two battery blocks in position, make the connections indicated in the preceding text, that is, A+ connects with the filament break jack, and A— with a filament terminal on the detector socket. This must connect with the grid coil in order that a positive bias is applied to the detector. From the audio transformer a wire passes through the partition to B+ 40 or thereabouts. This value will have to be altered, but the minimum should be chosen at which the set will operate. B— connects to A+ and the maximum "B" voltage to the body of the output jack. The "C" battery comprises an ordinary 4½ bias battery laid over the "A" coils. The + terminal connects with A—, the negative with "G" of the transformer.

Everything has now been completed, and it remains to try out the receiver. First use a good aerial and earth as for home conditions, and find out the capabilities of the set. Then try an improvised aerial and earth. Become thoroughly acquainted with the operation of the receiver before taking it abroad.

It is advisable to build up a spare "A" battery in the method described so that it may be replaced when the other one fails. Those who do not wish to go to this trouble should obtain two 4½ volt "C" batteries and parallel them by joining the two 4½+ and the two negatives. This is A+ and A—

Choosing Components.

IT is necessary in selecting the components to do so with the utmost care. Everything is designed so that there will be a minimum of waste space and if anything of the components are too large the whole design will be thrown out. Particular care must be taken with the valve sockets. Use the small unsprung UX type, making certain that these are not more than ¾in. in height. If this is exceeded great difficulty will be encountered in fitting the valves in their allotted space.

The transformer and the variable condenser can be of a standard size though smaller ones will make the set both lighter and cheaper. The coil must not be greater than 2" in diameter.

Use low filament consumption valves so that the greatest consumption will only be .2 amp. The valves used by the writer are PM1LF and P.M.2. This is an excellent combination where loudspeaker reproduction is required. For 'phone work use either two PM1LF's or PM2DX and PM1LF. PM2DX is a special detector requiring .2 of an amp. It was found, however, that the extra consumption was compensated by the better results obtained. Suitable combinations may be obtained in Osram valves, using two DEL 210's, or DEH 210 as detector, and DEL 210 as audio. In Radiotron use UX 199 in both positions, but notice that the filament voltage is three requiring 6 volts "A" battery (two three-volt valves in series). Another good combination may be obtained from 660 valves, using 210 H.F. as detector and 210 LF as audio.

Short-Wave

(Concluded from page 32.)

clear on records, and later a talk in Dutch came through (strong generator hum). PLF was also picked up on 15 metres at 8.50 p.m. Records and talks in Dutch heard at R8, till 9.5 p.m., when I went over to the 80-metre band, and picked up ZL2AX, Palmerston North, on records, at a good R9.

At 10 p.m. KZRM Manila relayed the Philippine Constabulary Band. This came through at R9, good speaker strength. At 11 p.m. W2XAF was transmitting records for Australia and New Zealand. Strength R9. Closed down at 12 p.m. Bangkok, Siam, at 12.15 a.m. was picked up on 20 metres, at R6, later R7 on records. At 12.30 a.m. 5SW radiated the London lunch programme till 1 a.m. This came over at R9 very clearly. —L. Saunders (Wellington).

For Sale or Exchange.

See page 32 for column of casual advertisements.