

other DX'er?—D. McL. (Wellington). Yes, I heard 3EF on the 22nd. I wrote him last October for verification, but so far have had no reply.—N.J. (Master-ton).

Test Programme from KSTP.

LAST week up here in the King Country reception has been excellent. One evening WBNR, Chicago, came in at R10 and had to be toned down. It was between 7 p.m. and 7.30 when they signed off. Also, on evening of April 11 stations 3KZ (3WR, Wanganui), 2MV, Moss Vale, all Australians, came in at good speaker strength. Have secured items for verification. Friday evening, April 11, 8.15 p.m. (N.Z.T.), KSTP, National B.C., St. Paul's, Minnesota, put over a test programme and desired any listeners to send in reports of same. These they would duly recognise and forward any literature in connection with their station. Although KSTP was fading badly, several items were noted and verification sent for.

The D.X. notepaper for reception reports is an excellent and up-to-the-minute idea, and no doubt all D.X.-ers will avail themselves of this businesslike method of writing up their reports.—"Wireless Bug" (Raetihi).

American Loggings.

LATEST additions to my log are KWKH, Shreveport; WBAF, New York City; KYW, Chicago; WCKY, Kentucky; KSTP, Minneapolis; and Radio Te Anua. J.P.C. (P.N.) and Cromdale (Otago): When I picked up KSTP I distinctly heard the call Minneapolis, but I think you are both correct, as I notice WDGY is listed as Minneapolis, Minnesota. It would greatly assist many if D.X.-ers when giving the wavelengths and frequencies of distant stations would state whether they are official or approximate. If official, we know, for example, that

it is just above a station we already know. If approximately it may either be just above or below.—B.W. (Stratford).

Reception Reports.

D. P.B. (Wellington).—Your report card is very similar to our verification notepaper and includes all that is neces-

DX Notepaper

IN a panel published elsewhere is given a list of QRA signals, including those used in the DX verification notepaper. Audibility and readability signs are also given. In future, with all orders for DX notepaper (which may be obtained from the "Radio Record," Box 1032, Wellington, at a price of 1/6 for two dozen sheets—minimum order—or 4/- for six dozen, postage included), a copy of these signals will be enclosed.

sary for a comprehensive report. Unfortunately a small reproduction would not be readable.

Report from Oxley Station.

FOLLOWING is an extract from the reply to the report which I sent to A.W.A., Ltd., re the Oxley radio station:—"This station will become 4BC in lieu of the present station in the near future, when it is hoped you will be afforded many additional hours of broadcast entertainment. The wavelength of the station is 262 metres (1140 kc.), and the power 200 watts. A special type of aerial is used which may account for absence of distortion.—A. S. McDonald, Chief Engineer." The latter statement

Intense Heat in A.C. Valves

PRESENT-DAY heater type a.c. valves mark an achievement of the highest order in the development of severe service materials. For one thing, the insulator tubing in most valves must have a fusion point above 2270deg. C., as contrasted with 1820deg., which is the fusion point of porcelain. What is more, the insulating tubing must not warp, shrink, break, decompose, or interact with the tungsten wire at this temperature. It must remain a good dielectric at glowing temperatures.

Meanwhile, the tiny holes throughout the length of the tubing no larger than the lead of an ordinary lead pencil—holes hardly visible to the naked eye—must be accurate in size and evenly-spaced at all times.

The short life of earlier a.c. valves has been traced to several causes. In the first place, materials originally employed for the heater insulator were quite unsatisfactory. The severity of the service conditions was not realised. Impurities resulted in broken-down insulation. There was frequently a chemical interaction between insulating material and tungsten wire. A common cause of failure was the fusing of insulator and wire, with early

re type of aerial is due to a remark I made regarding absence of distortion while other stations close by were hardly affected.—"Kowhai" (Christchurch).

breakage of both tubing and wire, due to unequal rates of expansion and contraction. Porcelains, fused quartz, alumina, and other materials, were tried in turn, only to prove incapable of fulfilling the extremely trying conditions.

The remarkable life and performance of present-day heater type valves are due to the introduction of magnesia. This material eliminates the heretofore critical exhaust conditions and high shrinkage in tube production, and provides the desired operating conditions.

The crolite magnesia insulated valves now available have a life of several thousand hours, and, what is more, are capable of withstanding severe voltage overloads without materially decreasing their useful life, thus solving the problem of fluctuating line voltage faced in many sections of the country.

In fact, it is now possible to obtain heater type valves superior to the filament type, due to the successful solution of the insulation problem.

Receiver in Helmet

TESTS carried out in America with wireless receiving sets installed in a policeman's helmet have proved successful, and this device has now been adapted for pocket receivers. Messages have been picked up by these small sets as far as 100 miles from the transmitting station, and it is probable that in the near future each policeman will be supplied with one.

FERRANTI

THERE IS NO EQUIVALENT

IN RESPONSE TO THE CUSTOMERS' REQUEST THE DEALER SAID: "FIT A FERRANTI, OR THE EQUIVALENT." THAT, OF COURSE, IS WHERE THE DEALER SLIPPED. THERE IS NO EQUIVALENT. SOME TRANSFORMERS CLAIM TO BE GOOD BECAUSE THEY ARE BIG. CONVERSELY, SOME CLAIM TO BE GOOD BECAUSE THEY ARE SMALL. SOME CLAIM THAT A PARTICULAR KIND OF WIRE PUTS THEM ON TOP OF THE WORLD. BUT WHEN ALL IS SAID THE MAIN THING IS PERFORMANCE.

THE CURVE OF THE **FERRANTI** TRANSFORMERS, DRAWN ON THE MUSICAL SCALE, INDICATES ITS PERFORMANCE. THAT'S WHAT YOU WANT TO KNOW! ITS PERFORMANCE. FERRANTI MAKE NO FANCY CLAIM ABOUT SIZE, OR WIRE OR ANYTHING ELSE. THEY JUST MAKE A TRANSFORMER TO DO THE JOB, AND DO IT BETTER THAN ANY OTHER TRANSFORMER MADE. SO LONG AS IT DOES THAT, AND CONTINUES TO DO IT, YOU DON'T NEED TO WORRY ABOUT HOW IT IS MADE OR WHAT IT IS MADE OF. AND AS FERRANTI HAVE BEEN MAKING TRANSFORMERS FOR OVER 40 YEARS, THEY KNOW SOMETHING ABOUT IT.

FERRANTI COMPONENTS WILL HELP YOU TO SECURE BETTER RECEPTION

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