Service Section

Readers with special problems in the care and maintenance of radio receiving sets are invited to send inquiries to the Editor of "The Listener." Names and addresses are required. Wherever possible, replies will be given, either in "The Listener" or by letter.

J.B.F. (Wellington) finds himself in a situation where his choice of aerials is somewhat limited. He asks for advice on which of three kinds is most likely to be efficient—the "brush" type, a horizontal aerial along the side of the house, or a vertical aerial. He adds that the nearest point that can be used for earthing his set will need an earth wire of approximately 30 feet, and asks if a wire of this length will be efficient.

The erection of an aerial in a restricted space, as proposed, must incur some loss of efficiency. It would be advisable to put up a vertical aerial, which is the best of the three types mentioned. The use of a vertical aerial would help overcome the problem of obtaining sufficient height above the ground, and the fading of reception from distant stations is likely to be less pronounced. Various types of vertical aerials are available commercially in kitset form designed for mounting on chimney stacks or on a suitably located mast. Some kits are supplied with screened leads for connecting the aerial to the receiver; this is an effective method of reducing interference. The "brush" is not an efficient type of aerial. Horizontal aerials are most effective when provided with adequate height above ground, which in the present case would entail finding another anchorage point well clear of the house and other obstructions. However, quite satisfactory results are possible, for a non-metal roof, with a horizontal aerial placed along the inside of the roof just below the hip. This method of installation has the advantage of concealing the aerial, although it is likely to reduce its efficiency.

If there is any likelihood of a person touching the metal work of a set and an earth or any earthed metal at the same time, it is extremely important to ensure that the receiver is earthed via the power supply lead and a three-pin plug in accordance with the New Zealand Electrical Wiring Regulations before attempting to connect any other earth to the set. If the power lead earth is found to be intact, and this requires also that the three-pin wall socket used to supply power to the set be supplied with an earth connection, a reception earth wire may then be connected without hazard. A reception earth should be of as low a resistance as practicable and as short as possible. Generally, a reception earth is desirable, but sometimes its connection will make little difference to reception, depending upon the extent of local interference and the effectiveness of the power lead earth.

(Miss) E. M. Rutledge (New Plymouth): To establish the cause of the interference would require further investigation in your locality. It would be advisable to refer the matter to your local radio inspector, Post and Telegraph Department.