## Notes and News from the North

(By "Call-Up.")

DURING the holiday period 1YA provided some excellent programmes, and their extended service was much appreciated by listeners. The many extra hours of broadcasting, and the absence of a number of regular speakers and artists who were away on holiday placed much extra work and responsibility on the station staff. They deserve the thanks of listeners for whose entertainment they worked hard while others were holidaying.

A NUMBER of new artists are to be heard from 1YA toward the end of this month, these including two new vocal trios and a new instrumental quartet. The Smithson Trio, which will be heard for the first time on January 23, is of special interest in that it consists of three members of the same family, father, son and daughter. A new instrumental quartet will play on January 27, led by Mr. David Whisker, the well-known Auckland flautist. On January 29 the Royal Trio will render vocal and instrumental extracts from musical comedy pieces.

MR. CULFORD BELL, station announcer at 1YA, will leave for his annual holiday on January 26, and during his fortnight's absence Mr. Len Barnes, the station director, will deputise for him at the microphone.

HOW many northern listeners know what a balalaika is? Not very many, one supposes, but after January 21 it should be quite common knowledge. On that evening Simon Philippoff, who has already been heard from southern stations, will render items from 1YA on this Russian instrument—so uncommon to this part of the world.

STATION 1YA rebroadcast 3YA's relay of Mr. Guy Menzies' speech from Hokitika on Wednesday night last. During the earlier part of the evening, while station officials were in touch with the Christchurch station, the southern programme was coming in very clearly, but when they switched over for the rebroadcast conditions were not so good and there was a considerable amount of static. However, the few words Mr. Menzies had to say were heard quite distinctly. Previous to his talk 1YA was rebroadcasting the gramophone items from 3YA for over half an hour. During these items a disgruntled listener 'phoned the studio. "This is awful," he said; "there's so much static coming through. Why I can get 3YA clearer if I pick it up direct myself." He seemed rather surprised when the 1YA official politely explained that the station had no jurisdiction over static, and suggested that if what the listener said were true, the best thing for him to do was to tune-in to 3YA direct!

MISS BUNTY STEUART, a Scottish contralto, is to make her first appearance from 1YA on January 31. Miss Steuart has had considerable professional experience and has sung on numerous occasions from radio stations in Australia, although this is her first microphone appearance in New Zealand.

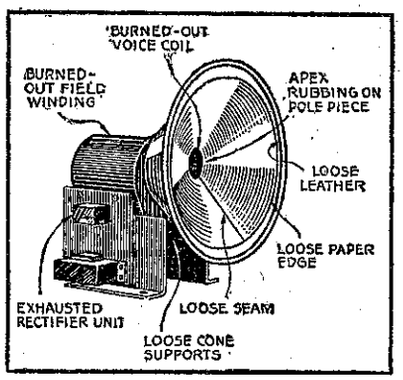
# Dynamic Speaker Faults

## Some Common Sources

IN many ways the dynamic cone speaker is an extremely rugged mechanism. The field magnetism, since it is produced by the flow of an electric current, never weakens so long as the current flow is maintained.

The dynamic speaker has definitely improved tone quality. But its wide frequency range of tone coupled with the method of construction sometimes accentuate faults that would be unimportant in a less efficient unit. On the very low notes, for instance, it may actually have a motion of as much as a quarter of an inch—many times the possible motion of even the best magnetic speaker. This imposes a severe strain on the diaphragm and on the mechanism holding it in place.

The accompanying illustration shows where trouble can occur and where to look if ever the speaker begins to produce queer, rattling noises or scraping sounds, or the volume falls off appreciably.




When the dynamic speaker is not in use the diaphragm is under no strain. The front edge is maintained in a central position by a thin, soft leather ring, the outer edge of which is clamped or otherwise fastened to the metal frame, the inner edge being cemented to the paper cone.

The cement is not infallible. When subjected to a severe strain, such as a crash of static, it may break loose at some point. If this occurs on the edge of the paper diaphragm the loose edge of the paper will vibrate against the leather and produce a rattling sound that usually will be most pronounced on one particular tone frequency. The leather itself may become loose at its outer edge and produce a similar but less evident noise.

Many dynamic cones are made from a single piece of paper with one cemented seam running from the apex to the edge of the cone. Occasionally this seam gives trouble. The cement gives way at some point and the loose edges of the paper rattle together. Looseness also may develop in the cone support arms.

Muffled and distorted music and speech, if it is not due to some defect in the set itself, often is caused by the ring at the apex of the cone rubbing on the pole piece. The clearance at this point is very small, in some cases not over five thousandths of an inch. Testing for this trouble is easy. Take a piece of writing paper and see if it can be slipped in the crack between the pole piece and the centre ring of the cone. If so, move it all the way around the circle without binding at any point. If it can be so moved the cone is not in trouble at this point.

Extremely weak reproduction on A.C. type dynamic units may be due to an exhausted rectifier unit.

A burned-out voice coil or field winding would put the speaker out of commission at once, but such troubles are so rare that they need not be considered.

## Human Electricity

### Current Photographed

IN research work intended to demonstrate that the human nervous system is an intricate electrical network with the brain as its semi-automatic switchboard, two scientists in Munich, Germany, claim to have photographed electric current issuing from a man's body.

The current waves were amplified to a point at which pictures could be taken. The photos, it is reported, showed sparks radiating from the fingers of an outstretched hand.

If the skin is dry, the experimenters declare, even the slightest motion of the fingers will produce sparks that can be "snapped." The pictures further showed that the oscillations increase when the fist is closed and opened quickly.

THE Auckland morning daily ceased publishing the 1YA programmes as from January 1, and as a result many listeners have been wondering if the station was off the air. This is certainly not so. Full details of the whole week's programmes are available in the "Radio Record."

### Useful Tips

IF your moving-coil speaker is one incorporating a permanent magnet, do not forget that if you place your watch near it it may become magnetised, with disastrous results to timekeeping.

IF you are troubled with a loudspeaker locking nut loosening, and so setting up chatter, remember it can be permanently secured after it is tightened by a little adhesive run into it, or even by a spot of candle grease.

## Electrical Interference

### Damages Awarded

WHAT is believed to be the first case in America where a public service has been found liable for interference with radio reception was recently concluded. The State Supreme Court upheld a circuit court jury in awarding 2000 dollars damages to an applicant in Milwaukee.

The claim for damages was filed against the Milwaukee Electric Company by the applicant on the grounds that a high-tension line running near his home created such an electrical disturbance that broadcast reception was completely spoilt.

The application was in the nature of a test case, and a number of power companies are now anxiously inquiring into the possibility of a crop of further actions of the same kind being brought

## Radio in Hedjaz

### Modern Eastern Ruler

THE King of Hedjaz and Nejd has recently concluded negotiations with the Marconi Company for the erection of fifteen radio stations throughout the joint kingdom.

These will link up every important centre, and four complete transmitting and receiving installations fitted in lorries are also to be supplied as mobile radio telegraph stations. These will enable the King, Ibn Saud, to keep in constant touch with his two capitals, Mecca and Riyadh, during his desert journeys.

In Mecca and at Riyadh, 400 miles distant, powerful telephone and telegraph transmitters and modern receivers will be installed, and the King will be able to talk between his two palaces by means of special microphones.

King of Hedjaz.

A British engineer will supervise the installation outside Mecca, and to provide for maintenance afterward King Ibn Saud has sent four of his subjects to England for instruction on the technical side of radio.