

# "WASHED, IRONED AND STARCHED"

## How IZB's Air Conditioning Works

**D**EEP down in the "innards" of IZB is a space which the prying visitor would be pardoned for mistaking for the boiler room of a ferry boat. To one side, as you enter, is a huge bulbous cylinder, about 30 feet long and 12 feet high; facing you is a frightening bank of electric switches, fuses and buttons marked "Stop" and "Start"; to the right are several iron boxes with glass windows which distantly resemble incubators; and from these lead square galvanised iron pipes which distantly resemble huge parcel chutes.

It is a bewildering place, and although the electric motors make no noise or vibration, you come away with the impression that a lot of work is done there. It houses, in fact, the machinery which attends to the air conditioning and heating of the new IZB building.

These systems—there are two, one for the studios, one for the radio theatre—are as complete, the people who designed them claim, as it is possible to make them. A description of how they work would involve an expedition into the highfalutin' terminology of the air-conditioning expert, which is scattered with words like "humidifier," "hygrostat" and "thermostat." Perhaps it is most simply explained by stating that the air in the IZB studios and radio theatre is kept at a constant temperature of about 65 degrees to 70 degrees in summer, and about 65 degrees in winter, and at a constant humidity, summer and winter,

of about 50 per cent.; and that when the temperature or relative humidity shows signs of varying from these figures, thermostatic control automatically brings the air-conditioning plant into operation and adjusts it in a jiffy.

All air which enters the studios and theatre is first of all sucked down a shaft which has its outlet away up in the roof of the building. Once arrived in the basement, it is "washed, ironed and starched" as the air-conditioning experts jocularly put it, and passed through the ceilings, the stale air being withdrawn through vents near the floor. The washing, ironing and starching involves passing the air through oil filters (which extract a surprising amount of debris from Auckland's atmosphere, by the way); then, in summer, dehumidifying it by cooling to a lower temperature than necessary and re-heating, or, in winter, humidifying by passing it through a fine mist of water; and finally bringing it to the correct temperature and forwarding it on by means of big electric fans.

### A Lot Of Refrigeration

The refrigerating engine, which will be kept pretty busy during an average Auckland summer, represents about 15 tons of refrigeration, or enough to run more than 100 medium-sized kitchen refrigerators.

The bulbous boiler, used for heating IZB's offices and the offices of the other Government departments in the building, has an internal diameter of 10 feet, an internal length of 26 feet 6 inches, and contains 11,500 gallons of water which expands by 500 gallons when heated by an element of 390 kilowatts—the average household heating element is approximately one kilowatt.



★ A pleasant ceremony which took place at the old IZB studios a few hours before the opening of the new building, was the presentation to the CBS Controller, C. G. Scrimgeour, of a silver plated model of the new IZB, and of a silver cigarette case to the deputy-Controller, B. T. Sheil. John Griffiths, station director, made the presentations on behalf of his staff, and both Mr. Scrimgeour and Mr. Sheil referred to the pleasure it gave them to see IZB moving to healthy and hygienic premises after enduring the conditions in the old studios for so long. Mr. Sheil paid a special tribute to the contribution of W. Illingworth, the station's engineer, to the new building. The picture above was taken during the presentation to Mr. Scrimgeour



# HOT MUSIC from COOL STUDIOS

AIR CONDITIONING by TAYLORS LIMITED enables IZB announcers and artists to work in comfort.



Air-conditioner serving IZB Studios

In the studios and Auditorium at IZB, fresh, clean, filtered air is circulated continuously at just the correct temperature and humidity to ensure comfortable conditions during the sweltering days of summer or the freezing weeks of winter.

TAYLORS LIMITED, of Christchurch, were chosen for this important job, and also for the central heating installation of the whole building.

TAYLORS LIMITED are specialists in Heating, Ventilation, Air Conditioning and Industrial Engineering and have been responsible for all the large air conditioning installations in New Zealand.

Whether its Shop, Office or Factory, let TAYLORS LIMITED solve your heating and Air conditioning problems.

# Taylors Limited

## ENGINEERING DIVISION

### 32 LITCHFIELD ST., CHRISTCHURCH

- Enquiries are invited on all proposals for Heating, Air Conditioning or Ventilation of Buildings for Process Air Conditioning, Drying, Steam Equipment, etc., for Industrial purposes.

Auckland Representative: Gordon Knight. Telephone: 40-658.