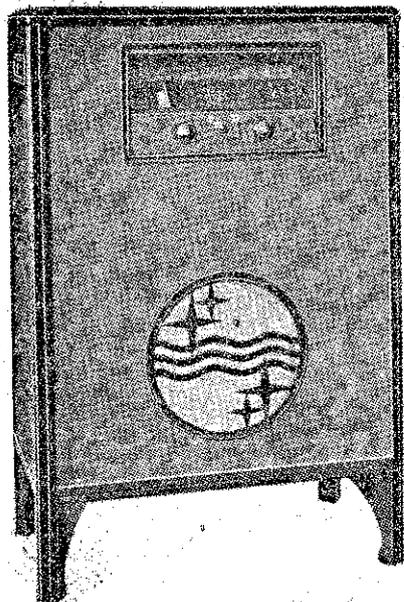


use in receivers using grid leak detector, and only one audio frequency stage. The preceding valve should have an impedance not greater than 10,000 ohms., and the anode current should not exceed 6 mamps. It is thus admirably suitable for single valve amplifiers.

AF. 8 has been designed to meet the need of those who require good results at a very low price. It has a ratio of 34-1, and an amplification curve which goes below 50 cycles and above 8000.

The new choke, B5, will be sold this year. Designed for use in power packs passing heavy current, it will take 160 m/as, and with this current has an inductance of six henries. At 40 m/as the inductance rises to 9. The d.c. resistance is only .40 ohms.

Philips Radio



THE "star" receiver of the Philips display at the Auckland Radio Show will be their new model 2601, recently landed in New Zealand. It possesses several unique features.

The cabinet, which is built of an attractive brown mottled bakelite, stands about 2 feet 6 inches high, and is of the Lowboy type. The controls, which are mounted on a sloping recessed panel, are four in number, and comprise a combination gramophone and on-off switch, volume control, tone control, and a single tuning control. The circuit, in the main, is identical with that of the popular Radio-player, and uses two stages of screened-grid radio frequency, linear power detector, with a pentode in the final stage.

Incorporated in this receiver is a new type of dynamic speaker—a permanent magnet speaker—recently developed in England. Though no field coil is used, it is as sensitive and will give as great an output as the ordinary dynamic, with the advantage that no hum or power scratches are present. Provision is also made for the attachment of an extra speaker.

The two open-work metal doors at the rear of the cabinet are fitted with gate switches, which automatically cut off the power when the doors are opened. Thus all danger of shock is eliminated.

Three aerial tappings are provided, two of them for use with a frame aerial. The primary of the power transformer is fitted with five tappings, ranging from

111 volts to 240 volts a.c., thus enabling the receiver to be operated on any power between these extremes. Pick-up terminals are also provided, and the volume obtainable is more than adequate for the average room.

The tone of this receiver, both on radio and on record reproduction, is unusually crisp and natural.

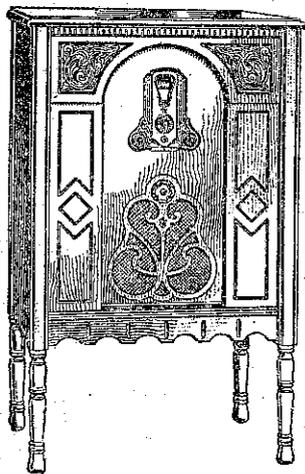
Lissen Limited

ENGLISH radio parts are gaining great popularity on the New Zealand market, and constructors will be interested to note that Lissen Limited are bringing out a wide range of new and interesting parts.

Airline

A SET new to the New Zealand market, but one which is very well known in America, is the Airline. A wide range of models, which will suit one's own requirements and match the furnishings of the home, will be made available to the New Zealand public during the coming season. A feature of the Airline service is that the New Zealand Express Co., who are the New Zealand distributors, have engaged a staff of servicing experts, who will always be at the call of Airline users. Not only do the New Zealand Express Co. market an excellent line, but they see that the product "stays sold." Airline is manufactured by one of the largest radio organisations in America.

Stewart Warner



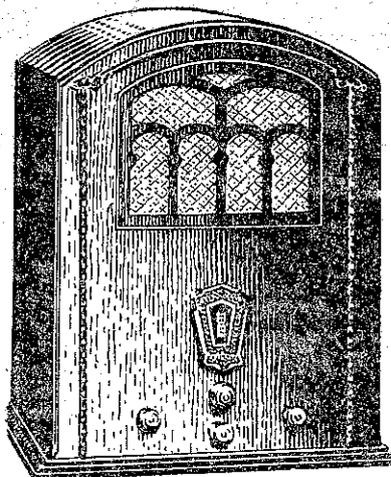
PROMINENT among this season's Stewart Warner receivers is the "Avon" console, a seven-valve all-electric model of particularly pleasing design. The cabinet stands 3 feet 4 inches in height, and is built of American walnut, tastefully carved.

The set employs three stages of screened-grid radio frequency, power detector, and one stage of audio, feeding into an improved push-pull stage. For the purpose of local reception, an aerial has been built into the cabinet, while, for increased sensitivity on long-distance reception, an antenna compensator to adjust the tuned circuits to the aerial used, has been included.

Another attractive feature of the "Avon" is the provision made for attaching either a dynamic or a magnetic type speaker, or both, without extra attachments of any kind. Thus extra speaker leads for magnetic speakers may be run into other rooms without the difficulty of incorporating a special transformer.

Pick-up terminals are provided, and in addition provision has been made for using this receiver for the reception of television when it appears.

Silver Marshall Radio

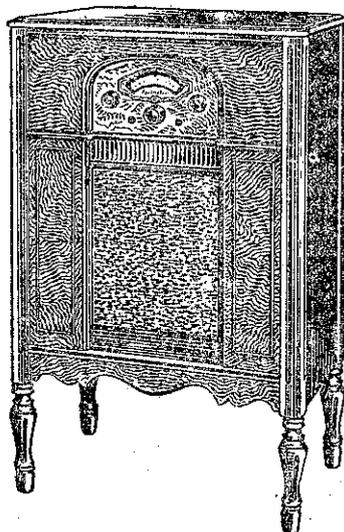


SILVER MARSHALL have produced two compact super-heterodynes, and these will be on the New Zealand market during the 1931 season. The Cadet is a smaller set than the usual console, and is housed in an attractive cabinet, while the Compact uses the same chassis but the cabinet is very much reduced until it has become a large midget.

Although small in size there is no skimping, for these sets are designed to maintain the good name of Silver radio. Both employ a pre-selector circuit, followed by a 227 as first detector. There are three stages of screen-grid intermediate frequency with a 227 power detector feeding through a transformer into push-pull 245's.

A high degree of selectivity has been obtained, and the sets each give 10 kilocycle selectivity often against 50 kilowatt stations within a few miles of the receiver. The sets are provided with tonic control, volume control and local and distant switches. Provision is made for a magnetic speaker or telephones.

Atwater-Kent



INTERESTING new models to suit a variety of tastes will be featured by Atwater-Kent this season. There is a new beauty in the design, a richer finish. The speaker opening will be cur-

tained with a special, unobtrusive new tone fabric. New and advanced engineering has been applied, and new heights of performance have been obtained. The new sets have greater range and even sharper selectivity. Due to a remarkable compensating mechanism, all stations are widely separated; there is no crowding or jamming. The wanted station can be picked out quickly and easily on the quick vision dial, which has been for twelve months a feature of Atwater-Kent radio. All station markings are in full view from any angle, and the figures in kilocycles are large and legible and are fully enumerated for instant reading.

The speaker is new and enlarged, possessing a richer tone, while the tone control gives four definite shadings from bass to treble. The gramophone combination 75P incorporates the latest valves and affords remarkable fidelity of reproduction. In addition to the a.c. sets, the Atwater-Kent Golden Voice models are available for districts where direct current is used and also where current is not available at all.

They are still making up-to-date battery models.

Columbia

COLUMBIA batteries have established a wide reputation with dependability the world over, and their new product, the Air Cell, should be well received this season. Last week we had a very complete article on the new battery, and, just in passing, we might add that already it is being widely used. The new Air Cell has a two-volt battery which works on an entirely new principle, being specially designed to work with the new American 231 type valve, although it can be used with the ordinary 2-volts valve. The outstanding feature of the Air Cell is that no control device is necessary to regulate the "A" battery voltage. It is absolutely constant over a long period.

Osram American Type Valves

THE British General Electric Co. are marketing this season a new series of American type a.c. valves. These are exact replicas of the familiar American types, and can replace them in any socket. The "Radio Record" laboratory has had a set of these for test and has found them equal in all respects to the standard valve.

We have used them in super-heterodyne, ordinary T.R.F. sets in all stages, in shortwave sets and in Loftin-White amplifiers. In every case their performance left nothing to be desired. A point in their favour is that the time required for the heating of the cathode of the indirectly heated valves has been cut down to a minimum. These valves are faster than in any others we have tested, taking only 10 to 15 seconds to reach an operating state. The types that we have seen are 227, 224, 245, and 280.

It is indeed gratifying to note that English firms are manufacturing valves that can be employed in receivers used in New Zealand.

Arcturus

ARCTURUS valves are manufactured in all the commonly used American types, and are conspicuous by the blue colouration of the glass. It is interesting to note that the Arcturus Radio Tube Company claim to be the trail blazers of the radio valve industry on account of their being the first to produce standard base a.c. valves, isolated
(Continued on page 14.)