

When I Think Back...

by Neville Williams

Charles D. Maclurcan: Engineer, businessman, hotelier and top Australian amateur broadcaster — 1

Charles Maclurcan became involved in amateur radio around 1910, and continued to operate during WW1 by arrangement with the Department of Defence. After the war, as Vice-President and then President of the WIA, he helped revitalise the movement and, as a leading amateur, to set the scene for the introduction of public broadcasting. In the mid 1920's, he also did much to demonstrate the potential of the high frequency spectrum for long distance, low-power communication.

I never met Charles Maclurcan, largely because he was a generation ahead of me and was making a name for himself in wireless/radio before I was born. By the time I became even aware of wireless, licenced broadcasting stations had appeared on air, giving rise to many other personalities to compete for the headlines.

During the 1930's, when I became actively involved in the industry, Charles Maclurcan was fully pre-occupied with family business affairs, and our paths never crossed. When his name did crop up in trade circles, he was commonly remembered as a former amateur broadcaster, whose family owned Sydney's 'Wentworth' hotel.

Looking back, the definition probably said as much about the rest of us as it did about Maclurcan himself. The average 1930's-style wireless enthusiast didn't have much interest in trendy hotels or move in social circles. We had simply to manage on a (very) few quid a week!

An unfair remark? "Not really", according to EA's former amateur radio correspondent, Pierce Healy VK2APQ. "That's the way it was." It — the contrast — suggests a logical starting point for the Charles Maclurcan story.

His mother was Hannah Phillips, born in 1861 to a couple who owned a hotel in Tambaroora — one of six 'pubs' in a small gold-mining shanty town between Mudgee and Sofala, in NSW, west of the Great Dividing Range. Charles Maclurcan's eldest son Donald adds that there were also three churches in the town, "which probably reflected the



Fig.1: From 'Wireless Weekly' for September 22, 1922, Charles Maclurcan at the height of his popularity as an amateur broadcaster from his station 2CM at Strathfield.

priorities" of the 400-odd residents. When the Phillips family subsequently moved to Toowoombah in Queensland, a teenage Hannah took over the management of her father's Club Hotel. The move proved to be a stepping stone to the

Criterion and Queen's Hotels in Townsville, Qld. She married a banker, Robert Wigram, in 1880 and bore him two daughters. When he died a few years later, Hannah emerged as the sole owner of the Queens' Hotel.

Maclurcan dynasty

In 1887, she married Samuel Donald Maclurcan, a master mariner (retired) from the British India Shipping Line, soon bearing him a daughter and, in 1890, a son — Charles Dansie. Behind the two children was an unlikely heritage of an ultra-Australian outback mining community and a pukka British family with formal links to education, the Church, Army and Navy.

In 1897, Hannah produced a very successful *Mrs Maclurcan's Cookery Book* which served as Australia's 'culinary bible' for the next half-century. Meanwhile, her son Charles was being educated at Downes Grammar School in Toowoomba.

1901 saw the family move south to Sydney, to take over the lease of the Wentworth House Family Hotel (alternatively known as Mrs Hayes' Boarding House) in Lang St, facing Lang Park, near the Rocks end of the City. Donald Maclurcan died two years later, leaving Hannah as the sole owner.

(Around 1942, as its then Managing Director, Charles Maclurcan was to prepare an illustrated history of the Wentworth site, detailing the acquisition of neighbouring properties and the nine-odd owners from 1855. It covered also the upgrading of accommodation

and the addition of a magnificent 1000-couple ballroom. While interesting in its own right, and for glimpses of old Sydney, I have included here only as much of the story as is relevant to the present narrative.)

Damaged by fire in 1911, the premises were restored and substantially enlarged. In 1912, the refurbished establishment was re-registered as the Wentworth Hotel Ltd, and its owner/manager Hannah Maclurcan set about transforming it into a major social, cultural and entertainment centre — an ambition that reached fulfillment in the 1920's. 1925 saw the launch of 'The Wentworth' house magazine 'with articles on art, literature, music, stage and screen... fiction... the great outdoors... and national sports'. As a quality journal, it was to be served by hand-picked writers and photographers.

Meanwhile, young Charles had been apprenticed as an electrical engineer at the nearby Clarence Street power station, where DC (direct current) was generated to power the trams and also supply 240V to the central business district. (This area was still on DC when I commenced work at Reliance Radio in nearby York Street, in the early 1930's).

Charles steps out

Initially, the power station had been operated by the Empire Electric Light Company, but was subsequently taken over by the City Council. His formal training complete, Charles Maclurcan took the opportunity to offer consumers personalised 24-hour, seven-day electrical service and maintenance for a monthly fee. The novel venture earned him enough to cover a trip to England, and to found a motor car importing business: Messrs Maclurcan & Lane.

While Charles could hardly have failed to acquire business acumen from his parents, his technical training had exposed him to workshop practice and the lure of electricity. It also led indirectly to an interest in wireless communication — which was based, initially, more on electrical concepts than what we now define as 'electronics' (Fig.2).

In an interview titled 'A Pioneer Looks Back', published in *Wireless Weekly* for December 8, 1922 he explained, with a characteristic element of whimsical humour:

'My wireless activities date back to 1908 or '09. There were very few experimenters in those days. The then-leaders were Chas. P. Bartholemew, rightly called 'the Father of Wireless', Mr F. Leverrier, and Mr Jack Pike.'

'I might never have taken it up, only Jack Pike and I were both keen on the

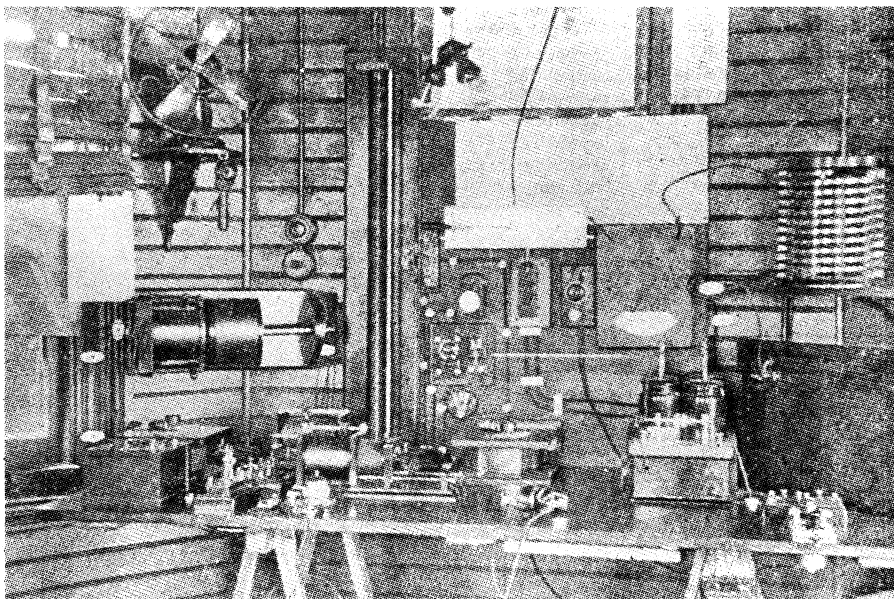


Fig.2: This picture was deemed to be historic when published on the cover of 'Wireless Weekly' for November 24, 1922. It shows portion of the spark equipment operated by Charles Maclurcan in the Wentworth Hotel. It was reputed to create fearsome sparks and alarming noises!

same girl and he seemed to be getting more of her attention than I thought to be warranted. I therefore decided to set about making noises like a spark gap, to sidetrack her.

'I didn't succeed but, anyway, she married someone else, so it turned out alright.'

Wireless for all to see

Be that as it may, in 1910 young Charles sought the permission of his mother to have two wireless masts erected on the roof of the hotel, one 76ft (23m) tall and the other about half that height. Accord-

ing to Charles Maclurcan, the installation cost £75 — equivalent to several months' wages in those days.

In a city with few tall buildings (at the time), the two masts, with an inverted-L 'wireless' aerial strung between them became a landmark and a conversation piece. The aforementioned nexus had been established between this new-fangled 'wireless', a young engineer Charles Maclurcan and the up-and-coming Wentworth Hotel.

Characteristically, he wasted no time. Granted an experimenter's licence, he set about building and installing a spark wireless system, learning Morse code and, in 1911, communicating with ships moving in and out of Sydney Harbour.

Central to the equipment, according to the same 1922 *Wireless Weekly* article, was a huge 12-inch (30cm) spark coil and a helix which, between them, could develop such fearsome sparks and alarming noises that visitors to the wireless room were often glad to be excused!

In the interview for the above article, Charles Maclurcan described the installation as follows:

'The first receiver consisted of the usual loose coupler arrangement, with a Pericon detector, and great was the excitement when, some time later, a Suva station was copied.'

'The first transmitter consisted of a 10-inch spark coil with Leyden jar condensers. When the key was pressed, things happened — everywhere.'

'Later, the transmitter was altered to a 1-1/2kW rotary spark set (non-

Music in the Air

Mr Maclurcan's next Sunday's concert will commence at 7.30 and will include the following Pathe records:

Fox Trot — 'Say it with Music'.

Soprano — 'La Forza dei Destino', Claudio Muzic.

Hawaiian Guitar — 'Mahaina Malamalaiama'.

Nursery Rhymes.

Whistling — 'Bita Raptures'.

Tenor — 'Vainement me bien Ainee'. Mr Vaquet

Piano Solo — 'Maiden's Wish'. Chopin-Liszt

Fox Trot — 'I Call You Sunshine'

Baritone — From the 'Little White House'

'The Night Nursery'

'The Smoking Room' (Edgar Coyle)

Hawaiian Guitar — 'Sweet Lei Lehua'.

Banjo — 'Linfanta' and

By request, 'Soldier's Chorus' (Faust)

(From 'Wireless Weekly', August 11, 1922)

synchronous) and a transformer giving 10,000 volts on the secondary.

'The furthest distance covered was about 2000 miles and, as there was no Sydney land station, ships frequently called LMX to report their probable time of arrival'.

First valve receiver

Charles Maclurcan then went on to explain that, while he was absent in Europe during 1911, fire damaged the hotel — as mentioned earlier — destroying his wireless room and its contents. Because the hotel lacked sufficient accommodation to cope with seasonal peaks, the management decided to take the opportunity to add two upper floors — work being well in hand by the time he returned. I quote:

'The aerial once more became a familiar landmark, in 1912, as an umbrella type. It was then 49ft (12m) higher up in the world.'

'The set then consisted of a Clapp Eastham, 1/2kW Hytone transmitter plus what was, I think, the first valve receiver used in Australia.'

'It used one of the original De Forest audions, pear-shaped, with a tiny flat plate and grid. It 'blue-glowed' on the slightest provocation but, nevertheless, was a great improvement on the crystal.'

'The second one of these valves was imported for Mr Bartholemew who, by the way, now has the transmitter of this station, retired peacefully in his workshop — 'stuffed', as it were (for display) on his mantelpiece!'

Charles Maclurcan rounded off his 1922 reflections with an observation that the photograph (Fig.2) shows the 'enormous amount of gear' once required, 'as compared with an up-to-date valve station. The idea then was: whatever gear you possess, work it all in'.

What comes through overall is that Charles Maclurcan borrowed, built, bought, modified and used an endless variety of equipment during his career, and the many published pictures of his 'rig' apply only to the period when they were taken.

With the outbreak of war in 1914, he was required, as an experimenter, to cease operation, dismantle his equipment and take down his masts. The first two presented no great difficulty, but taking down the masts certainly did. If the authorities wanted them removed, he insisted, they would have to accept the responsibility and expense of lowering them and re-erecting them after the war!

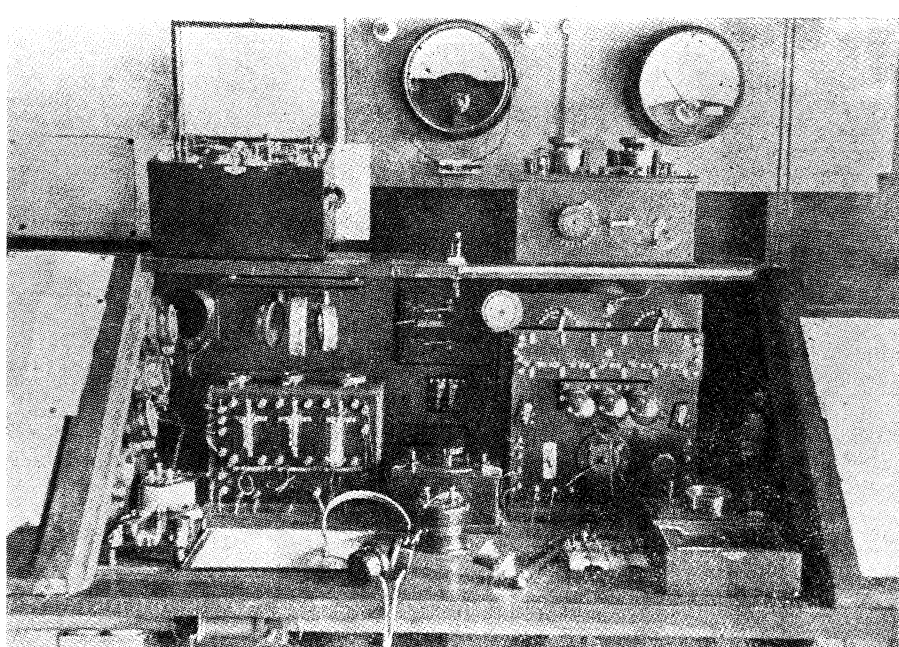


Fig.3: Intended to contrast with Fig.2, 'Wireless Weekly' published this picture on their cover for December 1, 1922, showing the 'much more modern' 2CM transmitter then in use at Strathfield.

According to his son Donald, the Defence authorities became convinced, during the exchange, that Charles Maclurcan could communicate with ships over greater distances than they could themselves, and they accordingly 'bent the rules' on his account. He was given the honorary rank of 'Major', on the understanding that he would work with and for them for the duration of hostilities.

It was the first of at least three occasions when, as an experimenter, he received special treatment by the Government. Indeed, adds Donald, he was so respected in official circles that his opinions were often sought alongside those of Ernest Fisk.

Man of many parts

In conversation, Charles Maclurcan's

Mr Maclurcan's Puzzle

A rope is passed over a pulley. It has a weight at one end and a monkey at the other. There is the same length of rope on either side and equilibrium is maintained. The rope weighs four ounces per foot. The age of the monkey and of the monkey's mother together total four years. The weight of the monkey is as many pounds as the monkey's mother is years old. The monkey's mother was twice as old as the monkey was when the monkey's mother was half as old as the monkey will be when the monkey is three times as old as the monkey. The weight of the rope and the weight at the end was half as much again as the difference in weight between the weight of the weight and the weight of the monkey. Now what was the weight of the rope?

two surviving sons, Donald and Robert (the second, Douglas is deceased) were anxious to make the point that their father was 'a man of many parts', with interests way beyond his traditional reputation as a wireless/radio pioneer of the pre-broadcasting era. It so happens that such was the central theme in a profile of a retired Charles Maclurcan published in *People* magazine for April 23, 1952.

Under the heading 'The Original Ham', the article was subtitled 'Master of many things, Charles Maclurcan who gained fame as a radio amateur and hotelier now says he's a retired bloke. It goes on to describe:

A life of immense speed and diversity in which he has been a garage proprietor, car importer, electrical engineer, model maker, radio mechanic and operator, philatelist, figure skater, hotel proprietor, racing motor cyclist, historian and businessman.

He has always been a profound negation of the old adage of doing one thing well, since he has, without exception, made a success of everything he has ever done.

Physically slim and wiry, if somewhat stooped, one of his favourite haunts as a youth was the old 'Glaciarium' ice skating rink, near Sydney's Central Station. *People* magazine carries a picture of him at age 19, when he had just earned the title of NSW Figure Skating Champion. He also headed the Glaciarium Honours List as the first man to pass the Bronze, Silver and Gold Medal International Ice Figure Skating Tests.

When the 'Glaci' was facing closure and demolition, *The Sun* newspaper (February 20, 1956) carried a one-page article about the old building which had been the home of ice skating, West's Pictures and 'Cyclorama'. Featured prominently was the name of Charles Maclurcan — known in other circles as a wireless pioneer and the son of parents who owned the Wentworth Hotel.

On roller skates or fresh snow, he was only slightly less at home and was one of the pioneers of the Kosciusko snow fields, having a run named after him.

Man in a hurry

Another picture in *People* magazine shows a debonair young Charles at the wheel of his mother's 1911 model Renault Landaulette — a motorised hard-top coach, if ever there was one. This was at a time when other motorists were glad enough to have a fabric hood, with or without celluloid side-curtains! *People* notes that driving licences were not required when Charles first

took the wheel, and that he still held the same serial number (in 1952) as he was allocated when they were ultimately issued: No.139. In that same Renault, he had the doubtful distinction of qualifying for a speeding 'ticket' while 'charging around' the streets near Circular Quay. Lacking a car, the police timed him between passes and calculated his speed as 24mph.

The magistrate was horrified. "Great Scott", he thundered, "That's the speed of an express train!" The offender was fined £4 (\$8.00) with costs.

On another occasion, Charles decided to test his skill against other motor cycle enthusiasts on a dirt track. He was leading the pack when the drive belt flew off its pulley, causing him to crash heavily. Other machines went over him, but he laughed it off on the grounds that, having 'hit the boards' previously from ice skates, roller skates, skis and toboggans, as usual, he 'hadn't been hurt'!

Although the Maclurcan family car was a Renault, Charles Maclurcan held the agency for an English friction-drive car, the GWK. Intrigued by his claim that its running costs were 1.5 pence (1.5c approx) per mile, a wholesale firm

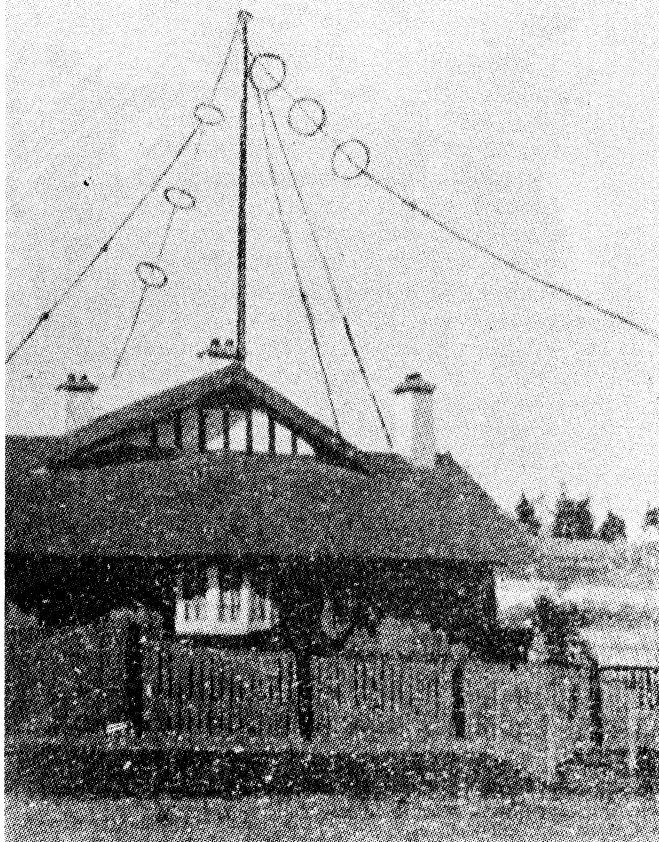


Fig.4: Erected in Maclurcan's backyard in Strathfield and as pictured in 'Wireless Weekly', this was one of the aerials in use at 2CM in October 1923. Other published pictures show two 80ft masts in the vacant allotment next door.

offered to buy two of them if Maclurcan would operate them on their behalf for 2.0 pence per mile. He accepted the unique deal, which operated for several years — apparently to the satisfaction of both parties.

Fun lover though he may have been, there was another side to Charles Maclurcan's nature — a love of machine tools and precision workmanship. With access to his own workshop at Maclurcan & Lane, this was most apparent in the impressive collection of hand-made models which he had produced over the years. To quote from the *People* profile:

During his model-building days, Maclurcan assembled a fine collection of steam, clockwork and electrically driven machines such as scale locomotives, freighters, yachts and stationary engines.

His most ambitious and spectacular model was that of the old battleship 'HMS Lord Nelson', 4ft 6in (1.37m) long, which was remotely controlled by radio. It never failed to create a sensation when it churned across Centennial Park pond, wheeling, stopping and starting as though equipped with a mind of its own'.

His son Robert says that, although he never saw them personally, his father had

installed model railway tracks on the roof of the Wentworth, as well as the wireless shack and aerial!

Radio post-war

At the close of World War I, the Government withdrew its restrictions on private radio, returned impounded equipment and re-issued experimenter's licences. But things had changed. While shipboard operators carried right on with their spark telegraphy, the future obviously belonged to valve-based equipment and telephony — the transmission and reception of speech and/or music.

Having married Winifred Kenna of Homebush (then a western fringe suburb of Sydney), Charles Maclurcan set up his family home at nearby Strathfield. Here they were to raise three sons: Donald, Douglas and Robert, the lastnamed born in 1920. Douglas, now deceased, became a radio engineer; Donald and Robert, both architects, helped in the preparation of this article.

At Strathfield, their father set up masts which, in the suburban landscape, became no less landmarks than those on top of the Wentworth. Two of them were in an adjacent vacant allotment, each 80ft (24m) high and 100ft (30m) apart.

He also set about building a valve-based telephony transmitter, which was housed in his 'ham shack' — along one wall of the family garage (Fig.3). For good measure, he later became the local agent for British Cossor radio valves and other wireless 'apparatus'.

In 1921, using a 50-watt transmitter on a 20-metre wavelength, he sent a message to His Majesty King George V from the wireless experimenters of Australia. In terms of technology, it was several years ahead of its time.

With his initials as his callsign, 2CM, he began broadcasting speech and music from his home at Strathfield, during 1921 - 22, for about 90 minutes each Sunday night. According to his son Robert, his licence to broadcast was the very first granted in Australia — written in longhand and signed by the then Prime Minister, 'Billy' Hughes, himself a wireless supporter if not an enthusiast.

Wireless Weekly for November 24, 1922 advises listeners to 'Listen for 2CM

WHEN I THINK BACK

on a wavelength of 1400 metres' (i.e., 214kHz or 'long wave'). Maclurcan later calculated that the broadcasts had gained an audience of about 5000 and, when he took time off for his annual vacation to Kosiusco, he was inundated with letters inquiring where had he been! As such, he could well claim to have been the first public broadcaster in Australia — and one of the very few in the world.

Wireless Weekly for December 8, 1922 carried a typical listener's letter directed to 2CM from a Mr H. Hinks of Mulgoa — nowadays accessible enough to the south-west of Sydney but, in those days, very much 'out in the the sticks':

Dear Sir,

I am writing to tell you that I heard your concert last night on a hand-made crystal set, using a pair of Brown's phones. The lady's voice came in very clear, also the steel guitar, of which I never missed a beat.

I have an aerial 600ft (180m) long and about 80ft (24m) up at the highest point, using twisted wire of 7/20 gauge.

I do not think it's a bad performance for a crystal, as I am about 40 miles from the transmitter. I might add that my call number is 2IS.

Charles Maclurcan's response to the letter was that, the best of his knowledge, Mr Hinks' reception of 2CM over 40 miles (60km) could be a record for a crystal set. But a 600ft wire, 80ft above ground... If, in 1994, I can borrow and adapt a phrase from *Crocodile Dundee*: "THAT'S an aerial!"

Soloist with 'cold feet'!

Maclurcan's son Robert related how, on one memorable occasion, Josie Melville visited the Strathfield 'studio' with the idea of presenting a couple of songs from the musical *Sally*, in which she was starring. When told that the audience on the night would approximate 5000, scattered in living rooms around the city, the soloist panicked and 'couldn't sing a note'. When calm was restored, she finally sang 'Look for the Silver Lining' and 'You can't Keep a Good Girl Down'!

Charles Maclurcan rounded it off with a request for listeners to write in, expressing their appreciation. About 2000 letters turned up within the next few days.

What happened to the other 3000? Said Charles: 'Maybe they didn't want to let on that they'd been listening without a licence'!

An accompanying panel lists the music offered during a typical Sunday evening broadcast from 2CM — comprising

78rpm records played on a spring-driven phonograph, fronted by a carbon microphone. To generations raised in a climate of hifi discs and tapes, and 24-hour radio stations, a program of three-to-four-minute shellac pressings would seem to be a non-event. In 1922, however, music for the average family was limited to hymns in church, an occasional concert, a family get-together, a music box or a dozen-odd tired 78's and a phonograph!

Nor was it just a matter of variety in musical fare. Per medium of wireless, new and refreshing personalities had gained access to the home with a different line of patter and snippets of news and information.

In the case of Charles Maclurcan, he was not without a sense of humour, albeit of the 1920's vintage. Conscious that enthusiasts were tending to take too seriously minor details of his equipment, he dreamed up a way of making a point — as he thought.

Toilet humour!

In the dead of night, he lowered his own aerial, disconnected the lead-in from the horizontal wire and reconnected them through a polished copper float ball, as used in toilet cisterns. Next morning, 2CM's latest 'refinement' was there for all to see. But nobody laughed. In no time at all, experimenters' aerial systems all around Sydney sprouted similar shiny copper balls, giving rise to earnest discussions as to how, or whether they worked!

People also told the story of how, on one occasion, Maclurcan rounded off his Sunday evening broadcast with a gimmick announcement:

The next two items will be:

'She sat in the sink and sunk!' and...

'It's not the cough that carries you off, but the coff-in they carry you off-in!'

It was apparently too much for a portly gentleman in nearby Lidcombe. With a huge guffaw, he flung himself back in his chair, earphones and all — spilling himself onto the floor and dragging his receiver after him in a mangled mess.

Again, *Wireless Weekly* for September 8, 1922 published a word puzzle which Maclurcan had broadcast on the previous Sunday evening. Reproduced in the accompanying panel, you can test your wits against those of your grandparents — but don't ask me for a verdict. Typing it was problem enough, without trying to resolve it!

In the second article, we'll look at Charles Maclurcan's research into long distance communication, using high frequencies and low transmitter power.

(To be continued) ♦