ODDS AND ENDS

More And More Puzzles

READERS, with some excuse, are beginning to retaliate. This week the mail brought another answer to the Noughts and Crosses problem, and lots more inquiries about puzzles generally. G. W. Richardson, Mount Eden, Auckland, was third getting his hand down. Second to Mr. Smithers was a shy Wellington subscriber who does not want his name printed but offers to send in something for us to be going on with.

* * *

In the puzzle pigeon hole this week appeared the following, from an unknown source. The staff lost some sweat but had it in about 15 seconds.

A beggar had a brother and the brother died. The man who died did not have a brother. What relation was the beggar to the man who died?

* * *

Up against this one (which they failed to solve!) the advertising department posed:

A man was walking along a country road. The trees were in bloom and the flowers green with spring foliage. Nearby a brook bubbled. He met an old friend, whom he had not seen for years, and years, and years. "I'm married now," said the friend, "and this is my daughter." Produced daughter out of nearby clump of witch hazel. "Hallo," he said, "and what is your name?" But daughter had other interests. "Same as Mother's," she replied, somewhat briefly. "Ah," he said, "Mary is it? That is a nice name."

How did he know?

* * *

From the West Coast comes an inquiry about the State Art Unions. A reader wants to know why more prizes don't go to Westland. We have replied by mail, with an official assurance that everything is open and above board. If the West Coast wants more prizes it will have to buy more tickets, or so we're told. Later we hope to steal some space for more about art unions.

Last week's problem about the night watchman, the employer, the train smash, and the sack, proved to be a little easy for readers who are very evidently developing discrimination. The night watchman, of course, should not have been dreaming when he should have been night-watching.

Research experts for Amalgamated Wireless, Australasia, use a tuning fork for testing station wavelengths. It is carefully kept at even temperature to give a frequency of 1,000 cycles and checked regularly against astronomical time signals from the world's observatories. When they are checked against this standard it is claimed that station wavelengths can be placed on their proper frequency within a very small margin of error.

MEGACYCLES OR METRES?

Explanation by BBC Engineers

BBC announcements, while always mentioning the frequencies (expressed as megacycles per second) used to serve the respective areas, do not give exact details of the corresponding wavelengths in metres. The reasons for this practice are described in this article by the Engineering Division of the BBC.

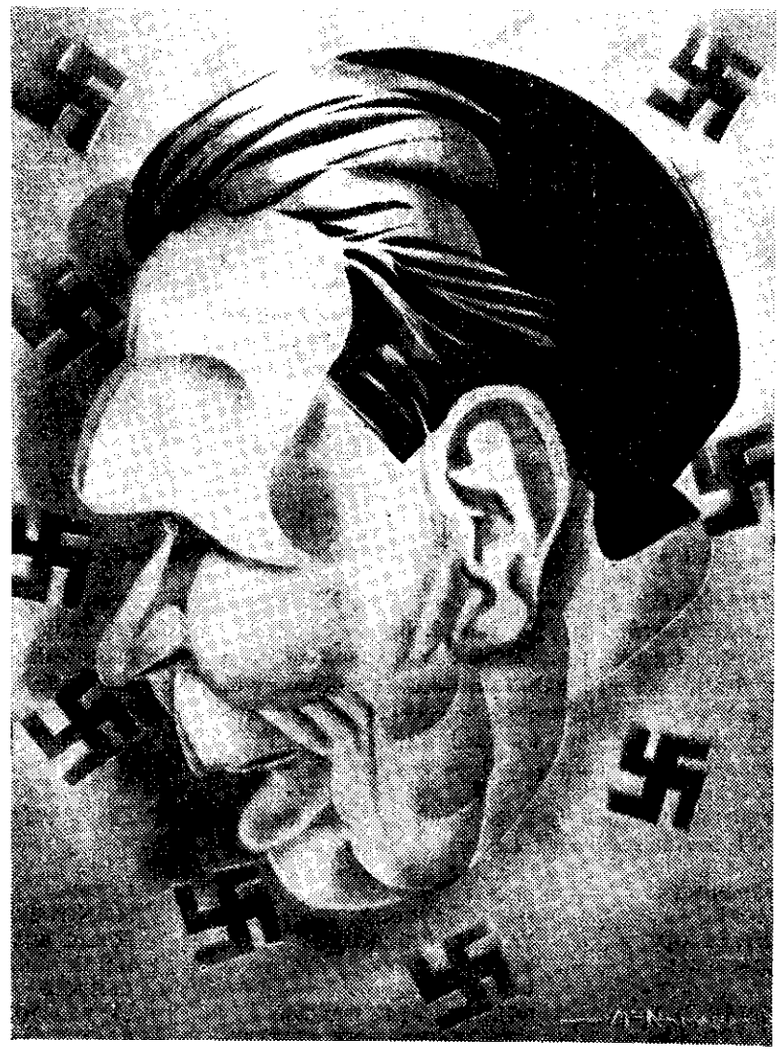
The term "wavelength" has been associated with wireless communication since the first practical applications of the science were instituted. In the early days, relatively "long" waves were used, and subsequently, when the broadcasting of general-interest programmes began, the practice of describing such transmissions in terms of wavelengths in metres was adopted by many organisations. Manufacturers of receiving sets, consequently, calibrated the tuning dials so that these indicated wavelengths, and this method of description, therefore, had become well established by common usage before short waves were used to any extent for broadcasting. (A notable exception to this practice occurs in the United States of America, where frequency in kilocycles per second has been used almost exclusively.)

It is, however, possible to specify a wave not only by its wavelengtth in metres, but by its "frequency" in kilocycles per second (abbreviated "kc/s") or megacycles per second (abbreviated "mc/s").

There is a definite relationship between the two units, and one can easily be calculated if the other is known—viz., if the wavelength in *metres* is known, this figure divided into three hundred gives the frequency in *megacycles per second*, and conversely, one megacycle per second equals 1,000 kilocycles per second.

It has been found that, in order to ensure undistorted, interference-free reception of high-quality transmissions, wireless stations may not operate on adjacent waves spaced from each other by less than 10 kilocycles per second.

Consider for example, two stations in the medium-wave broadcasting band that are spaced 10 kc/s from each other —e.g., a station working on 285.7 metres, and a neighbour working on 288.5 metres. There is here a wavelength difference of 2.8 metres. Consider next, in the short waveband, the British station GSJ, 21.53 mc/s, and the American station WCAB, Philadelphia, 21.52 mc/s. These two stations are also spaced 10 kc/s apart, but the corresponding difference in their wavelengths is only .0065 of a metre. In other words, the lower the number of metres, the higher the number of kilocycles, so that between 200 and 300 metres — a band of 100 metres—there is space for fifty channels 10 kc/s apart, but between 20 and 30 metres—a band of only 10 metres—is space for 500 such channels. The fact that stations generally work on exact multiples of 10 kc/s further emphasises the expediency of announcing short wavelengths in terms of frequency.



GOERING, GOERING—GONE?

Grabberwocky

(By Michael Barsley in *The New Statesman and Nation*)

'Twas Danzig, and the Swastikoves
Did Heil and hittle in the Reich,
All Nazi were the lindengroves
And the neuraths judestreich.

"Beware the Grabberwock, my son,
The plans that spawn, and plots that hatch,
Beware the Jewjew bird and shun
The Fuhrious Bundensnatch!"

He took his aryan horde in hand,
Long time the Gestapo he taught,
Then rested he by the Baltic Sea
And stood awhile in thought.

And as a Polish oath they swore
The Grabberwock with lies aflame
Came goering down the corridor
And goebbelled as it came.

Ein, zwei! ein, zwei, one in the eye
For Polska folk alas, alack,
He left them dead, and as their head
He came meinkampfing back.

"And hast thou ta'en thy lebensraum,
Come to my arms my rhenish boy!
Oh grabjous day! Sieg heil, begay!"
He strengtheneth in his joy.

'Twas Danzig and the Swastikoves
Did heil and hittle in the Reich,
All Nazi were the lindengroves
And the neuraths judestreich.

BLACK-OUT IN LONDON

Star

"Don't you think we might stop dressing for dinner now; we can't keep the curtains open?"