

# LETTERS

unnecessary bandwidth is being proposed (eg to include 30 TV channels). There is a tendency for engineers to propose this merely because fibre-optics makes it possible. They should resist the temptation. We need to be able to answer back; we do not need 30 channels.  
W. S. Mortley  
Essex

## Boffin

May I offer Douglas Kell "Whence 'boffin'?" (Letters, 18 March, p 742) the following: "BOFFIN; A puffin, a bird with a mournful cry, got crossed with a Baffin, a mercifully obsolete Fleet Air Arm aircraft. Their offspring was a Boffin, a bird of astonishingly queer appearance, bursting with weird and sometimes inopportune ideas, but possessed of staggering inventiveness, analytical powers and persistence. Its ideas, like its eggs, were conical and unbreakable. You push the unwanted ones away, and they just roll back."—George Philip (Air Vice-Marshal) Chamberlain, in R. W. Clarke's *The Rise of the Boffins*, 1962 (London Phoenix House).  
T. R. Empson  
London



## Giving away nothing

The letter by V. J. Copley-May ("Japanese threat", 25 February, p 535) deserves an answer. Philips does not speak with forked tongue. The sale of an empty site at Lowestoft to the Sanyo company provides local employment opportunity and gives away no access to distribution channels nor any commercial advantage.

Secondly, his quotation that "Japan has registered more patents and innovations than the US and Britain taken together" was succinctly answered in your own article (*New Scientist*, vol 92, p 243) relating to the quota system, which, it is suggested, is used in Japanese research departments, and also commenting adversely on the quality of the patent applications.  
C. Leach  
Philips Electronic and Associated Industries London

## Scientists at war

I was interested to learn how L. Harrison Matthews a biologist, was called in to work on GL (radar as it was later called) because there were no more mathematicians and physicists available (Forum, 28 January,

p 253). My own experience may be of interest.

During the first few days of the war, posters were put appealing for graduates in mathematics and science to place their knowledge at the disposal of their country. As a mathematical graduate of a whole year's standing, I duly responded, and was summoned to Cambridge in late September 1939.

I went to Cambridge fully expecting to be told of some important and mysterious work, but rather to my surprise I found myself embodied in the Royal Artillery and sent home to await the call to arms. This did not come until September 1940—long after the rest of my age-group had been called up—and then I was sent to an AA training regiment on Salisbury plain. In February 1941, just when Harrison Matthews was being told there were no more mathematicians or physicists available, I, along with some others with more or less the same qualifications, was engaged in square-bashing, spud-peeling and other military activities. Not that the intellectual aspect was neglected—we found ourselves, in company with large numbers of other gunners, on the receiving end of lectures on logarithms and elementary trigonometry.

Eventually I was posted to an AA site in the Orkneys. All the guns had been taken away to defend Clydeside and replaced by scaffold poles to deceive the enemy, but there was a GL. This was the first I had heard of this device, or of radiolocation as it was then called.

After several frantic letters had been sent to the War Office I at last arrived at Petersham, in the deconsecrated church that Harrison Matthews describes so well; in September 1942, three years after my application and long after the Battle of Britain was over, I was out in the field and doing the kind of work for which I had applied.

I am by no means the only one with this kind of experience. I feel that there is a moral somewhere—something to do with the attitude of governments towards scientists, perhaps.

E. W. Chapman  
Berkhamsted

Driving past Yatesbury today ("Biologist at war", 18 March, p 738) it takes the trained eye of an ex-inmate to detect that it was ever anything more than a ploughed field. The trees by the Officers' Mess entrance still stand (they are not elms), and far away by the "village" gate there is a building that used to be a radar workshop. But nothing else. Yet a couple of miles away, the stones at Avesbury cannot be much different from how they were in 1800 BC. Food for thought there!

John Walsh  
Swindon



## Not so invisible

Bill Sweetman extensively describes the main advantage of the "Stealth Bomber" ("The bomber that radar cannot see", 4 March, p 565). Because of its shape, and the use of composite materials, its radar cross-section will be extremely small. However, new means for detecting airplanes are also being developed. Such means, according to Albert V. Jelalian, will include laser radars (*Laser Focus*, April 1981, p 88). A laser radar will have only a limited range of 10-20 km. Nevertheless, its precision will complement the ability of microwave radars to search out targets. Furthermore, the laser beam will considerably aid discrimination from among real threats, decoys and false images. These features will be essential for defending strategic targets from bomber or cruise missile attacks. Of course, the design of the "Stealth Bomber" will certainly minimise reflection of laser beams as well as microwave beams. But, it is not impossible that a suitable combination of radar systems may soon make the "Stealth Bomber" obsolete just like its predecessors.

Andre Gsponer  
Geneva

## Smoky and the beer

The report on beer and lead (Monitor, 4 March, p 572) puzzled us at first just how does drinking beer produce lead in the blood?

Answer—it doesn't. The giveaway was the reference in the same article to smoking more than 20 cigarettes a day. Anyone regularly imbibing three or more pints of beer daily is probably drinking in a pub and inhaling everyone else's tobacco smoke for several hours into the bargain.

Perhaps Shaper and Clayton should extend their investigation to home-brew drinkers.

M. E. Pritchard  
D. G. Rhodes  
Hull

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