And the board considers the lower figure the more likely. If the growth rate does turn out to be 3.5 per cent a year, then the CEGB will need an extra 19,500 MW by the end of the decade. All but 4,000 MW of that have already been authorized, so that only three new stations will be required, only one of them nuclear. Even if demand does reach five per cent per annum Mr Hawkins said, the CEGB still only envisages four nuclear stations by 1982, and one of those will probably be a fast breeder. As a result Mr Hawkins informed the committee that the CEGB is hardly in a position to offer business to one nuclear consortium, let alone two as at present.

**ENVIRONMENT** 

## **Lead Cut Lip Service**

AT long last Mr Peter Walker, Secretary of State for the Environment, has announced his proposals for reducing the lead content of petrol in Britain. The measures, first promised in December 1970, will lower the permitted levels from 0.84 g l.<sup>-1</sup> to 0.64 g l.<sup>-1</sup> by the end of this year, to 0.55 g l.<sup>-1</sup> by the end of 1973, and to 0.45 g l.<sup>-1</sup> by 1976.

In his statement in the House of Commons last week, Mr Walker said that "the Chief Medical Officer of Health has advised that the present levels of lead emission do not offer a danger to health, but that it is desirable that they should not be exceeded and they should if possible be reduced".

The reductions promised, however, will have little immediate effect (see Nature, 236, 104; 1972). Even though the permitted level of lead in petrol is 0.84 g l.<sup>-1</sup>, the average level in 1971 was only 0.54 g l.<sup>-1</sup> and even five star petrol only had a lead level of 0.64 g l.<sup>-1</sup>. Thus the new measures will have no effect until next year, and even then will scarcely make any difference to four star petrol (by far the best selling grade), which contained 0.55 g l.<sup>-1</sup> of lead in 1971.

The oil companies state that the reduction of lead levels will not affect the production of five star petrol even when the lead level is reduced to 0.45 g l.<sup>-1</sup> (the current lead content of three star petrol) as the octane rating can be raised by further refining; the full reduction proposed, however, should only raise prices by about 0.5p a gallon.

**BRITISH ASSOCIATION** 

### One Leap Ahead?

THE British Association for the Advancement of Science holds its 134th annual meeting in Leicester in September. Breaking with tradition, the meeting will last from Monday, September

4, to Saturday, September 9. There will be almost 250 lectures, forty films, five general symposia, and seventeen section meetings—not to mention the Science Fair, the section dinners and all the usual sideshows of this annual jamboree.

Among the more promising lectures on offer are Sir Vivian Fuch's presidential address on "Exploration—purpose and personality", Dr Kenneth Mellanby's "The biological effects of pollution—an ecological problem", and Dr M. J. Rees's Kelvin lecture on "Theoretical aspects of X-ray astronomy".

Other events that should prove informative and controversial are symposia on genetic engineering, life and leisure in the cities of today and the year 2000, "Is science a menace?" and how science has been popularized. There is also an open forum on "Science Prospect '70s". Women's lib in science, diseases of the affluent society and the James report are all due for discussion, and if the words all prove too much, then participants can escape on one of the many excursions.

Behind the scenes, the association is planning yet another step into the twentieth century. The General Committee, the ultimate governing body, will be presented with a proposal that the council—the association's policy-making body—should be substantially reduced in size and that its members should be elected by the general membership, with the General Committee acting as a kind of electoral college.

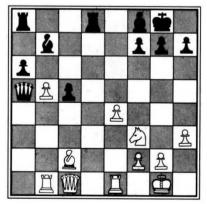
CHESS

### **Spassky's Hopes Revive**

SPASSKY'S win in the eleventh game of the World Chess Championship is perhaps the break for which he has hoped. Fischer followed the same risky variation of the Sicilian Defence that he employed in the seventh game, but this time Spassky was much better prepared. The theme of white's game was the rather blatant attempt to trap Fischer's stray queen, and Spassky actually managed to achieve this by the twenty-fourth move. This win, although it still leaves Spassky trailing by  $4\frac{1}{2}$  to  $6\frac{1}{2}$  points, should at least encourage him to feel that the outcome of the match has not yet been settled.

The tenth game was strongly played by Fischer, particularly since Spassky was beginning to show greater truculence than in many previous games. Spassky answered Fischer's Ruy Lopez

#### SPASSKY BLACK



WHITE FISCHER

Position after Black's 25th move in the tenth match game

with a system involving the subtle retreat of his queen's knight (9... N-N1) and a general regrouping of his queen's side formation. He boldly contested the centre by 17... P-B4 which allowed a series of near forced exchanges leading to the position in the diagram after 25... QxP.

Spassky probably considered that his position was quite satisfactory at this point and it must have been a shock to him when, after a series of systematic hammer blows by Fischer aimed at his kings bishop's pawn, he found himself obliged to surrender the "exchange" for a pawn. Note that 27 . . . P-B5 would be answered by 28 BxP; and 30 . . . K-R1 by 31 . . . N-N6ch followed by mate. It is just conceivable that Fischer had even visualized the position arising after his thirty-third move (33 RxB) some time earlier, for instance when pondering over his seventeenth and eighteenth moves. The ensuing endgame proved to be without prospects for Spassky since he was unable to advance his queen's side pawns.-J.P.

# TENTH MATCH GAME White: Fischer Black: Spassky Ruy Lonez, Brever Variation

		Ruy	Lopez,	B	reyer	Variatio	M		
White		Black		1	White			Black	
1	P-K4	P-K	4	- 1	29	QR-Q1		R-K2	
2	N-KB3	N-C	B3	- 1		BxP ch		RxB	
3	B-N5	P-Q	R3	- 1		OxR ch		QxQ	
	B-R4	N-B	3	ı	32	NxQ		BxP	
	0-0	B-K		- 1	33	RxB		KxN	
	R-K1			- 1	34	R-Q7 c	h	K-B3	
7	<b>B-N3</b>	P-Q	3	- 1	35	R-N7		R-R8	ch
8	P-B3	0-0			36	K-R2		B-O3	
	P-KR3		J1	- 1	37	P-N3		P-N5	
	P-Q4				38	K-N2		P-R4	
	QN-Q2	B-N	2	-	39	<b>R-N6</b>		R-Q8	
	B-B2	R-K	.1			K-B3		K-B2	
	P-QN4					K-K2		R-Q4	
14	P-QR4	N-N	13			P-B4		P-N3	
15	P-R5	N(N	3)-Q2			P-N4		PxP	
16	B-N2	Q-N	11			PxP		P-N4	
	R-NI					P-B5		B-K4	
	NPxP					R-N5		K-B3	
	PxKP		2)xP			R(K4)x			
	NxN	/IKD	Į			R-N6 c	h	K-K4	
	P-QB4					K-B3		R-Q1	
	BxN	QxB				R-N8		R-Q2	
	PxP	KR-			51	R(N4)-	N7	R-Q3	
	Q-B1	Q-Q				R-N6		R-Q2	
	N-B3	QxP				R-KN6		K-Q4	
	B-N3					RxP		B-K4	
	Q-KB4					P-B6		K-Q5	
28	N-K5	Q-B	2		56	R-N1		Resign	S