

Society, will be held in London during May 23-24. Further information can be obtained from the Secretary, British Nuclear Energy Society, 1-7 Great George Street, Westminster, London, S.W.1.

AN open day will be held at the Agricultural Research Council Weed Research Organization on May 27. Further information can be obtained from B. A. Wright, A.R.C. Weed Research Organization, Begbroke Hill, Kidlington, Oxford.

A SYMPOSIUM on "Echinoderm Biology" will be held at the Zoological Society of London during May 25-26. Further information can be obtained from Prof. N. Millott, Zoology Department, Bedford College, Regent's Park, London, N.W.1.

AN ordinary meeting of the Scottish Section of the Society for Analytical Chemistry on "Thin-layer Chromatography" will be held in Paisley on May 31. Further information can be obtained from the Society for Analytical Chemistry, 14 Belgrave Square, London, S.W.1.

ERRATUM. In the article entitled "Thromboplastin-induced Hypercoagulability and its Prevention", by Dr. S. Nordström *et al.*, which appeared in the May 8, 1965, issue of *Nature*, the second sentence of paragraph one, p. 633, lines 5-8, should read: "'Trasylo1' has proved to be an antithromboplastin *in vitro*<sup>3</sup> and, more specifically, has been shown to block the reaction in which factors VIII, IX, X and contact factors take part<sup>4</sup>".

## THE NIGHT SKY IN JUNE

All times are in Universal Time

MOON		CONJUNCTIONS WITH THE MOON	
New Moon	18d 20h	Venus	15d 23h, 1° S.
Full Moon	3d 08h	Mars	—
		Jupiter	—
		Saturn	11d 21h, 2° N.

### PLANETS

Name	Times of rising (R) and setting (S) during the month			End	Mag.	$D_p$ (10 <sup>6</sup> miles)	Zodiacal position
	R/S	Beginning	Middle				
Mercury	S	Unfavourable	22h 00m	21h 45m	-0.3	103	Gemini
Venus	R	2h 25m	2h 00m	1h 50m	-3.5	112	Aries
Mars	—	Unfavourable for observation			—	232	Taurus
Jupiter	S	22h 10m	21h 20m	Unfavourable	-1.4	573	Gemini
Saturn	R	1h 35m	0h 40m	23h 40m	+1.3	896	Pisces

$D_p$  is the distance of planet from the Earth on the 15th of the month

### OCCULTATIONS OF STARS BRIGHTER THAN MAGNITUDE +6 AT GREENWICH

Star	R/D	Time	Mag.
$\lambda$ Vir	D	27d 22h 18.4m	+4.6

(D, disappearance; R, reappearance)

### OTHER PHENOMENA

21d 21h, summer solstice

## CORRESPONDENCE

### Ships and String and Sealing-wax

SIR,—I have read your leader of April 9, 1966, with surprise, for I did not realize well-informed men could see things so differently.

You state: "prices are often uncompetitive and delivery dates too long". This paradox resolves itself. Prices are unremunerative, not uncompetitive, because in an attempt to keep labour forces from disintegrating, contracts have been accepted at too low a price. Further, for political reasons, foreign buyers have been subsidized by H.M. Government, berths are filled and booked for a long time and new deliveries can only be promised for distant dates. Rather than admit this, a shipbuilder required to tender may put forward a discouraging price. The position is aggravated by H.M. Government policy to coax new industries to shipbuilding areas where they compete for skilled labour, particularly in finishing trades. There is also the habit—of old standing—of making delivery promises for components which the maker has but a faint hope to honour.

You state: "Relationships between shipbuilders and the suppliers on whom they rely, particularly the engine makers, are too confused and complacent". However, so far as engines are concerned, the trouble is that half our shipbuilders, and probably all the major ones, build their own and that consequently production is fragmented instead of being concentrated into efficient units. There were, until recently, about nineteen British makers of marine steam turbines. Geddes implies there ought to be only one. I do not know the figures in regard to Diesels. Geddes says there ought to be four only.

The expenditure on research and development, I agree with you, is and has been far too low, but you cannot

really relate it to total turnover, that is, the price of ships' hulls. Far too little was spent on steam installations, I agree, and what little was spent was frittered away by moving in all directions simultaneously, instead of being directed to improving economy of use by raising cycle efficiency and trustworthiness.

It is true that the heavy, slow Diesel "came into fashion" because it seemed, on paper, to be economically superior, but cycle efficiency of steam installations has improved to match Diesel efficiency, and steam turbine availability—days per year—has proved itself superior to that of Diesels. The fashion, therefore, will change again. Faster, medium-speed Diesels, I believe, will not be the solution. Not only is the efficiency inherently lower because of the unfavourable ratio of cylinder surface to volume, but also the incidence of failure increases with the number of components.

You speak approvingly of the recent powerful enhancement of the industry's concern for research and its availability to carry it out effectively. Presumably you are thinking of the re-organization of the British Ship Research Association in 1962. This, however, divorced design from 'research and development', and neither was subjected to the discipline arising from intimate connexion with producing, marketing and operating products. I do not know of any large-scale successful commercial undertaking working under such conditions. I therefore look forward to the implementation of the Geddes recommendations.

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