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**CURRENT SCIENCE 50 YEARS AGO**


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**MINISTRY OF KNOWLEDGE\***

*Sir James Colquhoun Irvine, C.B.E., D.Sc., F.R.S.  
(Vice-Chancellor, St. Andrews University.)*

**T**HERE is in most of us a desire — often through sheer modesty unexpressed — to use our knowledge and experience for the common good; this is the impulse which may masquerade under that much-abused name “Service”. Although sometimes pretentious, it is essentially a worthy impulse for, more than anything else, it justifies the years of effort spent in obtaining a higher education and the sacrifice of those who have made that privilege possible.

True, the opportunities for service which lie open to the young graduate are few and apparently trivial, but this does not mean that we should ignore them. A habit of mind comes with practice, and there is at this moment a special timeliness for the cultivation of that habit as the world stands in need of all the help we can give. The shallowest of optimists must admit that this is not a particularly happy age. Something has gone wrong with the world, and we search feverishly for hasty cures to meet sudden ills. The spread of education does not seem to have exercised any beneficial effect; indeed, it almost seems as if education had aggravated matters and the reason, as I see it, is that new knowledge is wrested from the unknown and poured into the world at a rate faster than man’s feeble absorptive capacity can accommodate. Here is a new aspect of this age of speed.

The result is that we live under conditions which impose, to an extent never exceeded in History, the necessity for swift action to meet the sudden cataclysmic changes which assail mankind. To say this is not to repeat mechanically a platitude or to echo an idle fear, for it is a sobering truth that the world is moving too fast. I admit that civilisation has already passed through many periods when disorder and unrest threatened and, in the end, destroyed the peace which is man’s natural inheritance. Equally, there have been times when a quick succession of discoveries — geographical, industrial and scientific — created new economic factors and produced confusion out of which order was slowly evolved. Yet, reflection convinces me that, since the close of the

Middle Ages, civilisation has never been subjected to so many sudden shocks as in the age of discovery in which we live. It is not so much the multiplicity of these changing conditions which has baffled and perplexed us as the fact that the swiftness of their impact has caught us unprepared. Science and her foster-child invention have showered upon the world powers which have been rapidly exploited mainly for the individual gain of the moment and without regard for the greater good or for the future. No doubt it has always been the case that discovery has progressed in advance of man’s intelligence and of his capacity to utilise new knowledge, but never before has man been given so little time to adapt himself to the impact of the new ideas he himself has evolved. While there is invariably a lag period between the origin of new knowledge and its applications, that interval has shrunk in our time almost to vanishing point until effect succeeds cause as swiftly as thunder follows lightning. We need not pause to multiply examples when we recollect that nearly two centuries of effort were required to transform early experiments on gas pressures into the steam engine and the locomotive, while less than a single generation has seen the development of the internal combustion engine to give the motor car and the aeroplane.

In more senses than one, we live in an age of speed, and speed brings its dangers. There is no alternative, than, but to act in advance by forecasting the channels down which discovery is likely to drive mankind and to frame national policies in accordance with these predictions. The few minutes of a graduation speech do not permit elaboration of this theme but surely it is not vain to hope that some day the machinery of Government will include as a matter of course a Ministry of Knowledge whose function, to put it in the briefest possible way, is to look ahead. When conditions, apparently stabilised, can be upset almost overnight by a single observation in a laboratory there is need for the finest intellects in the country to be set apart for the purpose of predicting the repercussions of new knowledge on all phases of life. Such an organisation would not invade the province of

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existing departments of State, for its chief concern would be with the future rather than with the issues of the day and hour. Then, perhaps, it will be possible to frame in advance a national policy in which due regard is paid to such far-reaching problems as new sources of energy, such fundamental questions as to whether our coal supplies are to be used merely for power or as raw material for manufactured products, whether our forests — long-dated investments at the best — will be utilised for the purposes for which they were planted or devoted to alternative uses already looming in sight. Had there been in existence thirty years ago such organised legislation as I have suggested the world might well have been saved from at least some of the devastation created by unemployment; we would at least have been spared the humiliation of seeing the policy of international sanctions put into effect without sufficient preparation in

advance of the moment of emergency. These are but examples; yet they are sufficient to show that all public departments — trade, education, health and defence included — would benefit in the end if trained intellects were entrusted in this way with the hazardous role of the prophet.

These are large issues and I must remember that I am speaking not on a political platform but to graduates of a Scottish University. If the larger problems to which I have referred must, for the time being, lie beyond the range of your effective help — our Ministry of Knowledge is still a dream — there remains much in which you can play a part, if only on a modest scale and within a shorter radius.

— (*From a speech delivered by Sir James Irvine at the Graduation Ceremony held at St. Andrews, June 1936.*)

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## ANNOUNCEMENT

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### INTERNATIONAL RUBBER CONFERENCE AND EXHIBITION

The ninth International Rubber Conference (Rubbercon '87) organized by the Plastics and Rubber Institute will be held at Harrogate, UK from 1–5 June 1987, concurrently with International Rubber Exhibition (Rubberex '87). Both the Conference and the Exhibition will open on June 1st at Harrogate.

Rubbercon programme comprising of around 100 lecture papers will run in two concurrent streams, plus 30 poster papers. Speakers from more than 20 countries representing five continents are expected to participate. Some of the important speakers are: Dr S. Nair of the Malaysian Rubber Research and Development Board on natural rubber; Prof. H. Schnecko of SP Reifenwerke GMBH, FRG—Mate-

rial and production evaluation; Dr S. L. Aggrawal of the General Tyre Corporation, USA—Polymers molecular and vulcanization structures; and Prof. J. P. Kennedy, University of Akron, USA—Polymers.

The subjects for other sessions will include: Reinforcement polymer blends and thermoplastic elastomers, interrelated manufacturing systems, AMT and quality assurance, machinery processing, rubber chemical and specialised properties for products.

For further particulars please contact: Martin Shuttleworth, Plastics and Rubber Institute, 11 Hobart Place, London SW1 OHL and Gordon Morey, Emap Maclaren Exhibitions Ltd., 79–81 High Street, Croydon CR9 3SS, UK.

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