kilowatt-hours of power in less than 0·01 sec. The sudden release of such a tremendous energy gives rise to a blinding flash many times brighter than the mid-day sun, which is followed by a tremendous and sustained roar and a heavy pressure wave. This causes destruction to men and material on a scale hitherto unknown. Because of this fact, the discovery of the atomic bomb has made warfare terrific beyond imagination. It is therefore imperative that in future the production of this new type of weapon should be effectively controlled in the interests of the whole world and not of one nation or another. It is to be hoped that in the mean time no efforts will be spared by the nations who are in the know of the secrets of the atomic bombs towards finding a suitable antidote for the same.

If the tremendous energy released from atomic explosions is made available to drive machinery, etc., it will bring about an industrial revolution of a far-reaching character. It is estimated that a pound of uranium can generate the same amount of power as a few million pounds of coal. But there are obvious difficulties connected with the control of the evolution of atomic energy. It is easier to make a destructive bomb on the atomic principle than it is to harness atomic power for peace-time purposes, and a great deal more research work is needed before atomic power can be put to industrial use. It is necessary to emphasize that the prospects of producing cheap atomic power are none too bright, however, if the chain reaction can be propagated only by slow neutrons acting on the less abundant isotope of uranium. It is to be hoped that practical ways may be found for utilising the transmutations of the commoner elements for the production of power.

R. S. KRISHNAN.

IMPERIAL CHEMICAL INDUSTRIES (INDIA) RESEARCH FELLOWSHIPS

AT the Ordinary General Meeting of the National Institute of Sciences of India held at Calcutta on the 23rd July 1945, Mr. D. N. Wadia, President, announced that he had received a letter from Lord McGowan, Chairman of the Imperial Chemical Industries, forwarding a document offering to the National Institute a sum of Rs. 3,36,000 for creating Research Fellowships in Chemistry, Physics and Biology at the Indian Universities or institutions approved by the Council of the National Institute, for over a period of five to seven years. The reasons and hopes which had prompted the Imperial Chemical Industries to offer a number of Research Fellowships to the Institute were explained by Lord McGowan in the following words:—

> "The National Institute of Sciences is, we believe, destined to play in India a part similar to that which the Royal Society of London has performed for nearly three hundred years in leading the scientific progress of this country.
>
> "The Royal Society until recent years was hampered by lack of funds and provision for the maintenance of scientific workers. This difficulty was eventually overcome by the generosity of various benefactors, including Industrialists such as Mond and Messel.
>
> "We thought, therefore, that there could be no better way of encouraging the advance of science in India and with it the general prosperity of the country than by the offer of these Fellowships which under the wise administration of your Council will, we hope, lead to an augmentation of the distinguished successes in science already attained by so many of your fellow countrymen."

The following are the terms under which the fellowships are to be created:—

1. Each fellowship to be worth Rs. 400 per month and to be tenable in the first instance for two years, with a possibility of extension up to a total of three years. (It is assumed that half the fellowships will be extended for a third year.)
2. In addition there will be a grant for research expenses to be made to the fellowship holders according to their needs of special apparatus and materials. For this purpose the National Institute will have at their disposal an average of Rs. 600 per annum for each fellowship.
3. There will be a grant of Rs. 13,200 per year to the National Institute for five years to enable them to pay for administration and the travelling expenses of such fellows of the Institute as may be selected to visit the fellowship holders at their Universities or Institutions.

The National Institute of Sciences is asked to administer the funds for the fellowships on the following principles:—

1. Appointment to and control of the fellowships to be made by the Council of the National Institute, acting on the advice of a special research fellowships committee.
2. This Special Research Fellowship Committee will represent various scientific fields and be drawn from various parts of India, so as to include any community, the over-riding consideration for membership being scientific fitness therefor.
3. The fellowships will be open to persons, irrespective of sex, race or religion, resident or domiciled in India (British India or the States) and under 35 years of age.
4. The fellowships will be tenable at any University or Institution in India, approved by the Council of the National Institute.
5. Fellows will be permitted to do a little amount of approved teaching or demonstrating. This should not be more than six hours per week and it should be a condition that they are paid for this work by the Institution or University at its normal rates.
6. The aim of the fellowships is to strengthen research in Indian Universities and Institutions, and it is hoped that the National Institute of Sciences will spread the research fellowships over them in accordance with this aim, but with the over-riding consideration of the scientific suitability of the particular University or Institution.