

vegetable oils to prevent the development of rancidity. The importance of this process to India will be realized when it is mentioned that 90 per cent. of the world's supply of paraffin wax comes from India and Burma. The process will be of great benefit to all the industries which utilize these articles especially those where the products are required for human consumption or cosmetic purposes. Messrs. The Tata Oil Mills Co., Ltd., have acquired the rights of utilizing this discovery so far as it relates to vegetable oils from Messrs. Steel Brothers.

These and other important researches of Dr. Bhatnagar have made the Indian industrialists realize the importance of research to industry and while at Lahore Professor Bhatnagar had in his hands a number of problems from Indian industrialists like Lala Shri Ram of the Delhi Cloth Mills, for whom Dr. Bhatnagar has already patented a process for producing a soft and lustrous cloth from material hitherto regarded waste; The

Lahore Electric Supply Co., who are erecting a plant for the manufacture of white lead; The Tata Oil Mills Co., Ltd., and the famous Birla Brothers of Calcutta. The grants made by these industrialists were being spent in maintaining scholars and meeting the cost of their work.

In the exalted position which he now occupies, he enjoys the unstinted support of his scientific colleagues and the confidence of the Government of India. His opportunities for promoting and consolidating the industrial expansion and economic prosperity of this great country are almost unique, and judging by the manner in which he has been initiating measures for the advancement of both by organising scientific researches in all branches of applied knowledge, we believe that India is already treading the high road to industrial and economic greatness. How soon it will be reached must necessarily depend upon the policy of the Government of India.

**SIR RAM NATH CHOPRA, Kt., C.I.E., M.A., Sc.D. (Cantab.),
F.N.I., F.R.A.S.B., F.S.M.F., M.P.S. (Hon.) (Lond.), Brvt.-Col.***

THE distinction of Knighthood conferred on DR. RAM NATH CHOPRA has given great satisfaction to his friends, and to the numerous felicitations, which he has already received, we add our own, which though late, are most cordial. His name is held in great respect by the medical profession in India to whose prestige and reputation he has added the fresh lustre of an impressive record of scientific researches of far-reaching importance. Like Sir Shanti Swarup Bhatnagar, Sir Ram Nath Chopra comes from the Punjab.

Even in his early days in the colleges, Sir Ram Nath showed a strong predisposition for conducting original investigations, and the subject in which he was most interested at the time, and whose whole complexion his later discoveries embellished, was pharmacology. While working in the laboratory of the late Professor W. E. Dixon, he produced a thesis on "The Action of Drugs on Ciliary Move-

ment" on the merits of which the young Ram Nath Chopra received the Doctorate Degree in Medicine of the London University. When in 1921, he joined the School of Tropical Medicine as Professor of Pharmacology and Physician to the Carmichael Hospital for Tropical Diseases, Dr. Chopra had served in East Africa and later worked with the British expeditionary force in Afghanistan. Dr. Chopra's work soon laid the foundation of a brilliant school of research in Indian pharmacology, and the contributions from him and his colleagues form a glittering memorial to the institution and constitute an inspiring chapter in the evolutionary history of the Western medical science in India.

With the able collaboration of Prof. Sudhamoy Ghosh and his assistants, a large amount of work on the botanical, pharmacological and therapeutic aspects of Indian varieties of known plants in pharmacopœia has been carried out. This has given us a very valuable knowledge regarding the possibilities of cultivation and economic exploitation of such plants as Ephedra, Belladonna, Aconitum, Artemesia, etc.

The research work on the action of the

* This note is based on a brilliant article written by Rao Bahadur Dr. T. S. Tirumurthi on the occasion of the honour of Knighthood conferred on Sir Ram Nath Chopra.

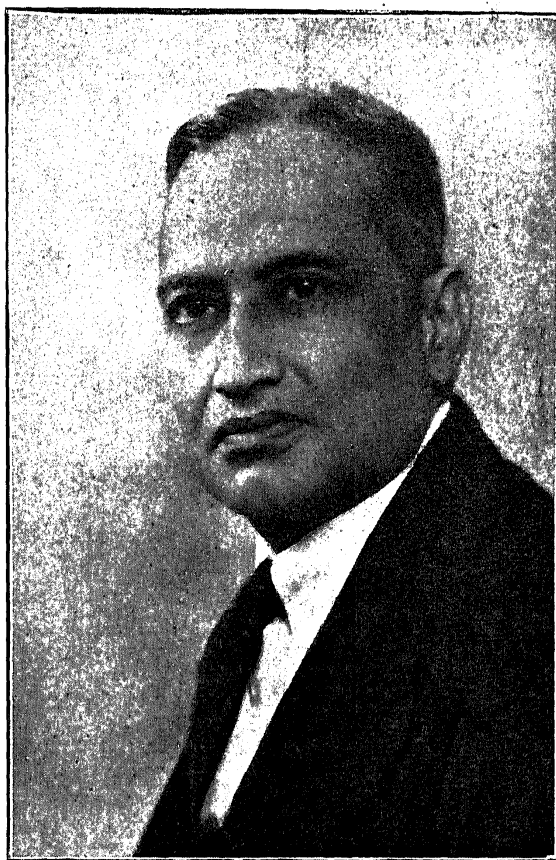
indigenous drugs of India is one of far-reaching importance. Though no epoch-making discoveries have been made, this inquiry has shown that only a limited number of the remedies deserve the reputation they have earned as cures. The field of research in this domain is a vast one and much is yet to be done, as Col. Chopra himself has said so often. A herbarium representing two-thirds of the total species of known medicinal and poisonous plants occurring in India has been established in Calcutta, and a monograph on 'Poisonous plants of India' is now ready for publication.

Perhaps the most valuable and well-known of Chopra's work was his report as the Chairman of the Drugs Enquiry Committee (1930-31). This report will remain as the best and most authoritative and outstanding publication on the subject of the "Control and standardisation of drugs in the Indian market". The report of the Committee drew attention to the complete lack of control over the trade in drugs and chemicals in this country, and suggested legislation for this purpose. The Drugs Act (1940)

was the result of this work and the consistent agitation carried on since then. Even before the Government decided to impose standards for drugs, Chopra was primarily instrumental in establishing the Biochemical Standardisation Laboratory in the All-India Institute of Hygiene.

Col. Chopra was elected a Fellow of practically all the scientific bodies and educational organisations in India including the Royal Asiatic Society of Bengal, the University of Calcutta, the State Medical Faculty of Bengal, the National Institute of Sciences of India,

and the National Academy of Sciences. In 1925 he was elected President of the Medical and Veterinary Research Section of the Indian Science Congress, and again in 1938 the President of the Physiology Section during its Jubilee Session. In recognition of his services, he was conferred the honour of C.I.E. in 1933. He was appointed Honorary Physician to His Majesty the King in 1935, and was promoted to the rank of a Brevet-Colonel. International recognition of his work has not also been slow to come. In



1937, the Cambridge University admitted him to the Degree of Doctor of Science, a very high distinction, and the Barclay Memorial Medal of the Royal Asiatic Society was awarded to him in 1938. The same year he was elected a Fellow of the Royal College of Physicians of London and also an Honorary Fellow of the American Society for Pharmacology and experimental Therapeutics. The latter recognition is a very coveted one, in view of the fact that there are only three other Honorary Fellows of this Society—Prof. Hans Meyer of Vienna, Prof. Straub of Munich, and Sir Henry Dale

of London,—all three internationally-known pharmacologists. In 1939, he was made a Fellow of the Belgian Society for Tropical Medicine, and he received a congratulatory message from the President of the German Pharmacological Society.

Though officially superannuated Sir Ram Nath Chopra is practically as alert and active as he was when he entered service and we wish him many happy years of notable research in the special field of medicine, which he has adorned by unremitting labours and by penetrating insight.