will be available for some years after the War, it is further recommended (Resolution XIII) that the several Governments affirm the principle of mutual responsibility for the increased production of essential foodstuffs to the utmost capacity of each country, the effective distribution of such foodstuffs, the prevention of speculation in food and other necessities under the anticipated conditions of scarcity, and the gradual adjustment of national agricultures to secure balanced expansion of production and consumption throughout the world.

Resolutions XIV and XV deal with the change-over from a short-term to a long-term agricultural policy. As a working basis the Conference recommends that national farming systems should be adapted to the natural and economic factors of the environment, and should be designed so as to maintain soil fertility and provide steady employment throughout the year. In general, this implies the adoption of mixed rotational farming. The evolution of such systems must be paralleled by the development of programmes of education and research and the provision, where needed, of technical assistance and adequate credit to the producers.

Resolution XVI makes specific recommendations for ensuring an adequate supply of credit to agriculture, and Resolution XVII stresses the importance of establishing farmer co-operative societies in all countries. Resolution XVIII recommends that surveys be made of existing systems of land texture. Resolution XIX enlarges on the importance of providing agriculture with efficient educational, research and technical services.

Resolution XX refers to soil erosion as "the greatest physical danger to the world's food production", and recommends that each nation undertakes the necessary economic and other measures to conserve its soil and water resources, while the permanent commission formulates the principles of soil conservation and facilitates the interchange between nations of conservation experts. Resolution XXI deals with the development and settlement of unproductive lands by drainage, irrigation, soil amelioration, etc. The permanent commission would perform a co-ordinating and controlling function similar to that envisaged in Resolution XX.

Resolution XXII recommends the development of subsidiary industries, internationally controlled emigration, and financial assistance in the intensification of agriculture in regions suffering from rural overpopulation.

Resolution XXIII recommends in the interest of international security the removal of barriers to the expansion of international trade.

Resolution XXIV makes suggestions for achieving an economy of abundance that read rather like an election manifesto. Resolution XXV recommends that the broad principles be formulated upon which international commodity arrangements should be based in order that such arrangements will contribute to the well-being of the peoples of the world, and proposes that an international organization be created for this purpose and to co-ordinate the operation of such arrangements in accordance with the principles agreed upon.

Resolutions XXVI and XXVII recommend special national and international measures for wider food production, special attention being given to the feeding of "vulnerable" groups and the making available of protective foods to all.

Resolution XXVIII recommends that the per-

manent commission investigates the practicability, and fosters the adoption, of international grade standards for agricultural and marine commodities with a view to a general improvement in the marketing and quality of food products. A wide extension of market research is advocated, and the taking of steps by the Governments concerned to protect both the producer and the consumer of food against the practices of those who regard them as legitimate prey.

Resolution XXIX recommends that the permanent commission studies the technical, scientific and economic problems of food processing, storage and distribution, and that steps be taken by each country to make full use of new technological processes developed since the War. Resolution XXX urges that the margins between the price to the producer and cost to the consumer be reduced by whatever means are practicable.

Resolution XXXI urges that the conclusions reached by the Conference regarding agricultural produce apply, whenever appropriate, to fish and marine products also, and that these subjects be considered equally by the permanent commission.

OBITUARIES

Prof. Antonín Šimek

FROM a reference in the *Chemisches Zentralblatt* to a notice by Prof. F. M. Jaeger in the *Chem. Weekblad* (August 22, 1943; 39, 454), it is learned that Dr. Antonín Šimek, professor of physical chemistry at the Masaryk University of Brno, Czechoslovakia, must have died about a year ago.

Šimek, who was one of the foremost Czechoslovak physical chemists, was born at Nové Hradý in Bohemia in 1887, and studied at Prague and in Holland, where he made many life-long friends. With the establishment of the Czechoslovak Republic in 1918, he was called to the newly-founded Masaryk University and for many years was fully occupied with the equipment of his laboratories and in academic work, though he found time to conduct researches on tellurium and its oxides. During this work he observed a curious phenomenon that still remains unexplained. He fused tellurium dioxide on electrically heated platinum foil and noticed that the molten drops always move away from the negative pole and towards the positive one. The substance would even travel uphill and its velocity was proportional to the current. In attempting to repeat the experiment with selenium dioxide, which had to be heated under pressure, Šimek met with a serious accident.

Besides being a physical chemist of distinction, Šimek was also a keen mineralogist and he examined a number of Moravian minerals for their content of the rarer elements. Mention has been made of Šimek's connexions with Holland. He also made several visits to England and used English text-books with his students. For their benefit, too, he translated A. S. Russell's "Introduction to the Study of Radioactive Substances" (1925) and Bragg's "Concerning the Nature of Things", and he made a feature of lecturing upon contemporary work in science. Most of his work was published in Czech, but he also wrote in Dutch and occasionally in English journals.

In 1926 he married his assistant, Miss Hannah

Kadlcová, who shared not only his scientific interests but also his devout Protestantism, and both were interested in the Czechoslovak Student Christian Movement.

Šimek, who died at the early age of fifty-five, will be sadly missed when Czechoslovakia is again liberated and the Masaryk University of Brno is re-opened.

G. DRUCE.

WE regret to announce the following deaths:

Dr. Mary Jane Rathbun, honorary associate in zoology since 1915 of the U.S. National Museum, known for her work on the Crustacea, particularly the crabs, recent and fossil, on April 4, aged eighty-two.

Mr. H. L. Sikes, C.B.E., formerly director of public works, Kenya Colony, on May 23, aged sixty-one.

BRITISH AND RUSSIAN MEN OF SCIENCE EXCHANGE OF GREETINGS

THE following message from Prof. Lena Stern, of the Academy of Sciences of the U.S.S.R., to British men of science was transmitted by the Embassy in London of the U.S.S.R. to the Royal Society. With the view of carrying out its intention, Sir Henry Dale, president of the Royal Society, has asked us to publish the message, so that it may reach a wide constituency of those for whom it is intended, together with the reply which he has forwarded to Prof. Stern through the Soviet Embassy.

Message from Prof. Lena Stern

On the day of the second anniversary of the War, I would like to tell you a little of how we Soviet scientists are carrying on to-day, working for our common cause of victory.

In this historic struggle of two worlds, of two world outlooks, of two diametric principles—good against evil, light against darkness, civilization against barbarity—our science has wholly devoted itself to freeing culture from the menace of Hitlerism, to defending the freedom of all nations.

Without exception, all our scientific workers—young and old, men and women—consider it their sacred duty to give all their strength and energy, all their knowledge and their very lives for this cause; and they fulfil their duty sublimely, disregarding all difficulties and all privations which the War has brought in its wake.

The work which is being carried on so intensively at our factories and mills, in our research institutes, in our university departments and in our war hospitals is wholly directed towards helping the front, to perfecting the arms of war, to protecting the health of our fighters. Our science is closely bound up with all the manifestations of the life of the people, both at the front and behind the lines, so much so that it is impossible to divide the man of learning from the fighter, just as it is impossible to divide the research institute from the factory.

It can be said without exaggeration that the heart of the whole people beats in unison with the front and that the slogan "Everything for the front" is not mere words but an actively motivated feeling of the entire people, of our multi-national State.

It is gratifying to be able to state that the theoretical achievements of our science now find wide and successful utilization in the defence of our country and in the strengthening of the fighting powers of our army. Personally I, with my pupils and associates, have since the first days of the War bent all our strength and knowledge to solving problems of the successful treatment of wounded fighters. I am happy beyond words that the results of our many years of theoretical researches now find application in the treatment of such dangerous complications

attending injuries as those of shock and tetanus, as well as in accelerating the healing of wounds and the combating of fatigue.

One feels the greatest satisfaction at knowing that by our work to-day we are bringing nearer the hour of our common victory, bringing nearer the advent of peace under which creative work will be able to develop to its full force.

We must all remember that our peaceful, constructive endeavours, the labour of free men of science, can be ensured only by complete victory over the enemy. I believe this victory will come as the result of the joint offensive by the Allied Armies.

Warmest greetings to you, my friends.

Moscow, June 27.

LENA STERN.

Reply by Sir Henry Dale, G.B.E., F.R.S.

The receipt of your message to British men of science has given great joy, and reminded me of my friendship with you, and our work together for international science, before the enemies of mankind inflicted on the world its present miseries, by their ruthless attack on the freedom and civilization of independent peoples.

Your stirring message came to me as president of the Royal Society of London, and, on behalf of all British men of science, I most heartily reciprocate your greetings and encouragement. We send to all the scientific workers of the U.S.S.R. an assurance of our full union with them, and with the men of science of all the great alliance, in a strong and fierce determination to use the utmost measure of our knowledge, skill and devotion to ensure and hasten the utter defeat of the enemies of freedom. We are equally determined that, with that defeat, conditions shall be established beyond danger of further attack, in which the scientific men of all nations may work for the greater happiness and health of all mankind.

Tell our comrades, the scientific workers of the U.S.S.R., that we, the scientific workers of Britain and of all the British Commonwealth, have been wholeheartedly devoted to these aims and these ideals during nearly four years of war, and with continued enthusiasm and growing confidence during these two years, in which we have known that our colleagues of the U.S.S.R. were our open and devoted allies in this tremendous war for freedom. We watch with unbounded admiration the achievements of the armies, workers and men of science of the U.S.S.R. for the common cause. We rejoice to know that we are marching together for the freedom of science and of the world.

With my friendliest personal greetings to yourself, and from all British men of science to all those of the U.S.S.R.

Royal Society, July 7.

HENRY DALE
(President).