

connecting tissues in the organism, research work which is being successfully continued to-day.

Prof. Nina Medvedova, one of Prof. Bogomolets' colleagues, has discovered new functions of the cortex of the suprarenal glands—functions which regulate carbohydrate metabolism. She has succeeded in producing, in the form of an extract, the hormone of the cortex of these glands, which she has named 'corticalin'. Corticalin is a hormone regulating the recreative phase of carbohydrate metabolism and is therefore known as the 'rest hormone'.

Profs. Fyodor Primak and Vassily Vasilenko, of the same Institute, working under the direction of Prof. Nikolai Strazhesko, are studying a number of clinical problems in war medicine, in particular the working out of methods of oxytherapy. They are successfully continuing their study of the process of re-establishing the role of the hamato-parenchymatose barrier in the human organism.

The Institute of Biochemistry has achieved very important results since the War began. The researches of Prof. Alexander Palladin, director of the Institute, into problems of the biochemistry of vitamins and the biochemistry of foodstuffs in general are of very great importance.

The Institute of Biochemistry is also carrying out research into the biochemistry of the nervous system and the biochemistry of muscular action in connexion with problems raised by clinical medicine, including the problem of the struggle against fatigue.

The Institute of Botany has been working since war began on the cataloguing and utilization of wild plants for defence purposes, and on increasing the output of agricultural products, both foodstuffs and industrial raw materials, to cover the needs of the army at the front and the people behind the lines.

The wild plant life of the Republic of Bashkiria, which is very rich in medicinal herbs, is being studied under the direction of Dr. Mikhail Kotov. A number of leaflets and pamphlets on the "Medicinal Herbs of Bashkiria" have been published. A number of wild-growing food and industrial plants are being utilized as the result of an Academy expedition.

The Agrochemical Section of the Institute of Botany has rendered great war-time service. Prof. Pyotr Vlasiuk has worked out methods of fertilization and farming processes for the cultivation of sugar beet and kok-saghyz, both of which are new crops in the eastern districts of the Soviet Union.

Prof. Nikolai Grishko, director of the Institute of Botany, is continuing his research into the sex genetics of hemp, employing the bi-sexual forms which he has produced in which male plants turn into female at the end of the vegetation period. The improvement of a sort of hemp which he produced earlier is being worked on. This sort is bi-sexual, both sexes reaching maturity simultaneously, making it possible to reap the crop entirely by mechanized methods.

Prof. Andrei Sapegin, who produced new sorts of winter wheat and barley which before the War were sown on 3,750,000 acres, is studying genetic processes of the reproductive organs of cultivated plants.

The laboratories of the Institute of Botany are working on new methods of the selection of hybrid pollen-bearing plants, in particular maize, and studying a number of problems in the cyto-embryology of plants. All this work aims at an increase in the output of agricultural products and an increase in war harvests.

OBITUARIES

Lady Lockyer

AFTER a long and active life devoted to wide social and scientific interests, Lady Lockyer, widow of Sir Norman Lockyer, died at Sidmouth on September 9, following a few days illness. She was ninety-one years of age, and her earthly body now rests in the little churchyard of Salcombe Regis close to that of her husband, who was buried there twenty-three years ago. The Norman Lockyer Observatory on the summit of Salcombe Hill is an outward and visible sign of the exaltation of their spirit to the skies.

Lady Lockyer was the younger daughter of Mr. S. W. Browne, and she with her sister, the late Miss Leigh Browne, became associated with Sidmouth from their childhood days through prolonged visits to their grandparents, Captain and Mrs. Carslake. When living in London they were students at Queen's College, which was founded in 1848 by F. D. Maurice, Henry Morley and other men of "light and leading" to provide scholarly training for girls. The two sisters took an active part in social work in Whitechapel associated with Canon and Mrs. Barnett at Toynbee Hall, and in other public affairs and women's movements. They were the prime movers in the establishment of the first hall of residence for women students in London. An appeal was made for funds to provide such accommodation for women students at University College and the London School of Medicine for Women, and in 1882 the Misses Browne took the lease of a house in Bloomsbury for a term of twenty-one years and placed it at the disposal of a committee appointed to carry out the project.

The first student to come into residence was Miss Cicely Ullman (later Mrs. Sidgwick), and the house was soon full. It became clear that a real need had been met and that further accommodation was required. Two adjoining houses were afterwards leased, but when the lease terminated it was decided to build a College Hall in Malet Street on a freehold site and large enough to accommodate 112 students. The foundation stone of this Hall was laid in October 1931, when Lady Lockyer gave an address on its origin and growth. The new Hall was opened by Queen Mary in 1932 and became the chief residential centre for nearly two hundred women university students in London, until it suffered very severe damage from enemy action during the present War.

Lady Lockyer was the widow of Mr. B. E. Brodhurst, F.R.C.S., when she and Sir Norman were married in 1903. In the same year Sir Norman was president of the British Association, and her gracious presence will be remembered by many members who attended the Southport meeting. Later, they left their London house and occupied one built for them facing the sea on the picturesque slopes of Salcombe Regis. After taking up residence in this house, Sir Norman decided that the summit of Salcombe Hill was admirably suited for an astronomical observatory, as it possesses an unbroken horizon in every direction. With characteristic energy he set about constructing an observatory on this site in 1912. About seven acres of land were presented for the site by Sir Norman and Lady Lockyer, and a number of their friends made generous gifts to build and equip this Hill Observatory, as it was first named. In 1916 the Observatory was formed into a corporation to promote its development, and all the lands, buildings and equipment

were conveyed to that body. The name was changed to that of the Norman Lockyer Observatory and the management and control were vested in a council of astronomers and other men of science.

In addition to the land on which the Observatory is situated, Sir Norman and Lady Lockyer contributed during their lifetimes sums amounting to about £11,000 to the Observatory, as well as valuable instruments. Sir Robert Mond, who was chairman of the Corporation until his death in 1938, had a new photographic equatorial constructed and a building erected to house it, his gifts amounting to about £7,500. Sir Francis McClean presented the fine twin-telescope used by his father, Dr. Frank McClean, and other gifts amounting to about £10,000, and his brother, Captain W. N. McClean, has contributed about £5,000 to the funds of the Observatory in addition to designing the domes of the chief instruments and supervising their construction. No other observatory in Great Britain has been built, equipped and maintained on this rich scale of donations from private benefactors.

By Lady Lockyer's death, the Observatory is provided with additional means for its development, in which she always took the keenest interest, and of which she was the honorary treasurer until her death. She has bequeathed to the Observatory Corporation the freehold house at Salcombe Regis in which she and Sir Norman lived, and most of its contents, as well as about forty acres of land up to the summit of the hill on which the Observatory stands, and a farm of eighteen acres and a cottage. It is rarely that such substantial benefactions are made in Great Britain for the advancement of astronomy, though they are common in the United States. They ensure permanent provision for purely scientific research at a time when attention is chiefly concentrated on investigations of possible industrial or other practical value. All who are interested in the pursuit of knowledge and the intellectual expansion produced by it will pay grateful tribute to the spirit and service by which Lady Lockyer used her faculties and means with wisdom and social understanding, not only during her life, but also provided for the continuance of this influence after she had passed into silence.

Lady Lockyer was elected a fellow of the Royal Astronomical Society in 1923, a few years after the Society had decided to admit women into its fellowship. Her cheerful and stimulating presence will be greatly missed by all who came into contact with her and she will long remain in esteemed and cherished memory.

R. A. GREGORY.

Mrs. Thoday

MRS. MARY GLADYS THODAY (*née* Sykes), whose death at the age of fifty-nine occurred on August 9, will long be remembered as a keen and versatile botanist. A distinguished student of Girton College, Cambridge, she obtained first-class honours in both the first and the second part of the Natural Sciences Tripos, after which she commenced research work in botany first as Bathurst student and later as fellow of Newnham College.

Attracted to cytological work, she published some interesting contributions on the structure and the division of the nucleus in *Funkia* and also some important accounts of the histology of several of the Laminariaceæ and the histological relations between *Cuscuta* and its hosts. But her active mind was

many-sided in its interests, and even while engaged in the researches just mentioned she turned her attention to the anatomy and morphology of some of the peculiar vascular cryptogams like *Psilotum* and *Tmesipteris*, also of the Gnetaceæ; publishing accounts of first-rate importance of both groups in the *Annals of Botany* and the *Philosophical Transactions of the Royal Society*. She also collaborated with one of her contemporaries at Cambridge, David Thoday (now professor of botany at University College, Bangor) in work on the physiology of plants and in genetics. Those who remember the eagerness of her mind at this time are not surprised at the remarkable output of her scientific work.

In 1910 she married David Thoday, but family cares did not interrupt her botanical work, and when her husband was appointed lecturer in plant physiology in the University of Manchester she was elected honorary research fellow in the University, and in addition to her private investigations she took some share in the botanical teaching. On their removal to Cape Town, where Thoday was appointed to the professorship of botany in 1919, Mrs. Thoday joined her husband in the study of the flora of South Africa on extensive botanical excursions and also continued her investigation of the Gnetales, and at the request of Prof. Seward revised and completed the authoritative book on this group of plants which the late Prof. H. W. Pearson had left unfinished and on which she expended much time and labour. After the return of the Thodays to Great Britain, Mrs. Thoday's interest in botany continued, and she was appointed honorary lecturer in botany in the University College of North Wales.

During a visit to Canada with the British Association in 1924 she collected material of the minute mistletoe *Arceuthobium pusillum*, and an investigation on this plant was begun on the lines of her earlier work on *Cuscuta*, but it was left unfinished owing to her serious illness.

During the War of 1914-18, Mrs. Thoday threw herself actively into the constitutional movement for women's suffrage, and while in South Africa she became interested in native welfare and the complex racial problems which beset that country.

After a serious illness in 1925 public affairs again claimed her interests and she gave an increasing amount of her time and energy to the promotion of international understanding and goodwill. The deterioration of the European situation towards the end of 1938 played no small part in her tragic breakdown in health in 1939, from which she never fully recovered. Those who know the prodigious amount of secretarial and organizing work, as well as public speaking, which she accomplished during the years 1925-38, can well imagine how much she might have continued to contribute to botanical knowledge in a peaceful world. Her four sons are all serving overseas.

F. E. WEISS.

Dr. H. G. Baynes

DR. H. GODWIN BAYNES, who died on September 6, was the leader of the Jung school of analytical psychology in England. His chief interest was not always, however, directed towards the intangible gossamer of the soul. He was a man well over six feet high, with breadth not belying his height, and with physical powers that gave him his 'blue' and led him in his university days to row for Cambridge against both Harvard and Oxford.