

## ILLUSTRATIONS FROM THE WELLCOME INSTITUTE LIBRARY

### THE CHAIN PAPERS\*

THE three men who shared the Nobel Prize in October 1945 for their work on penicillin could scarcely have differed more in their backgrounds and characters. Fleming was sixty-four years old by then; the son of a Scottish farmer, he was a retiring man, not given to conversation. By contrast, Florey, then aged forty-seven, was the son of a wealthy Australian boot and shoe manufacturer; aggressively ambitious, his achievements and intellect were later to secure him the Presidency of the Royal Society. Then there was Chain – a mere thirty-nine years old – a Jewish refugee of Russian origin, who still had major work on penicillin ahead of him; his ambition was mixed with an independence and volubility that was to lead him into conflict with the scientific/medical establishment.

Fleming has been the subject of many biographies, mostly hagiographical. Florey's role in the penicillin story was recently reassessed in Gwyn Macfarlane's excellent *Howard Florey. The making of a great scientist* (Oxford University Press, 1979). Sir Ernst Boris Chain died in 1979, and his biography is being written by Ronald W. Clark. This, together with future research on Chain's papers, will enable a fuller assessment to be made of the role and character of the youngest of the three scientists.

The Chain papers, recently given by Lady Chain to the Contemporary Medical Archives Centre, form an extensive collection of some sixty-nine boxes, comprising material from Chain's personal and professional life. There are some gaps: inevitably, for the early period (Chain left Germany in 1933, and his mother and sister did not survive the war); also, unfortunately, for the period of his work in Oxford; and later gaps, largely occasioned by Chain's frequent moves. Nevertheless, what remains is a valuable body of material, of interest not only to the biographer but to the general medical and scientific historian of the period.

A brief summary of the collection must suffice here, although the detailed three-volume list prepared by the Contemporary Scientific Archives Centre at Oxford is available at the Wellcome Institute. The permission of Lady Chain is necessary before readers may consult the papers themselves.

A small amount of biographical and personal material, including photographs, is in the first section, followed by notes, correspondence, and other papers relating to Chain's research at Cambridge and Oxford 1933–46. Most of the information about Chain's early work at the Sir William Dunn School is to be found in later correspondence and historical accounts. Amongst the contemporary items of interest are the draft grant application to the Rockefeller Foundation submitted by Florey (B.16), a letter from Florey reporting on penicillin work during Chain's visit to America in 1945 (B.28), and photographs of the early penicillin plant (B.18)

\* By Julia Sheppard, BA, Archivist, Contemporary Medical Archives Centre, Wellcome Institute for the History of Medicine, 183 Euston Road, London NW1 2BP.



Figure 1. Photograph presumably taken at Oxford; photographer and date unknown. Back row, left to right: S. Waksman, H. Florey, J. Tréfouel, E. B. Chain, A. Gratia; front row: P. Frédéricq, Maurice Welsch. (In the Iconographic Collection, Wellcome Institute, London.)



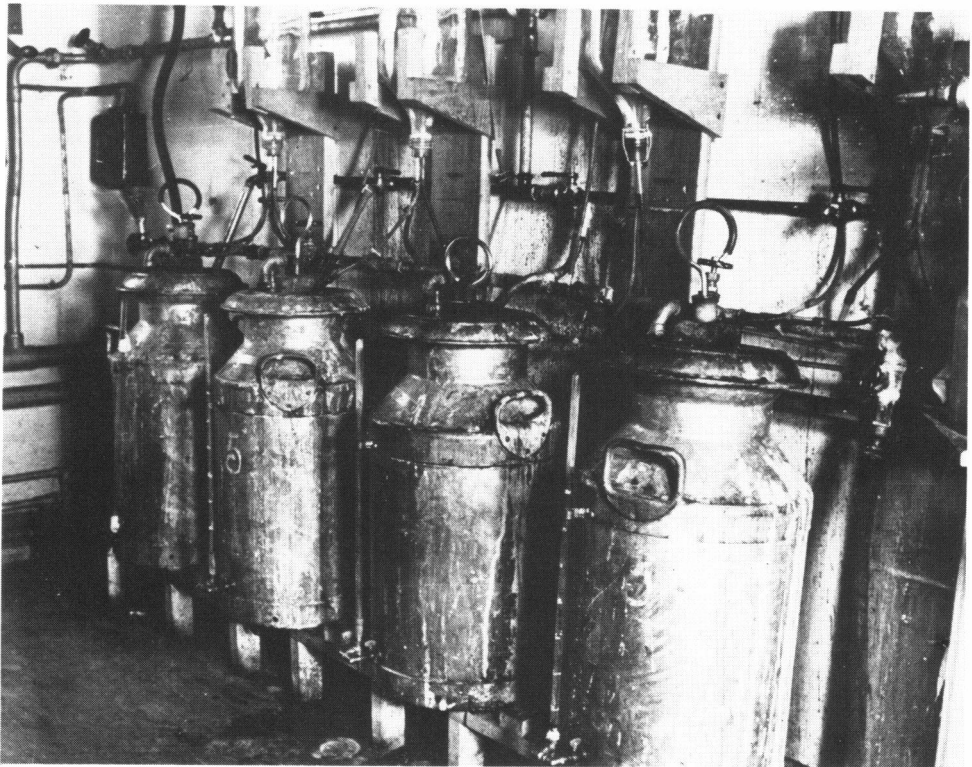
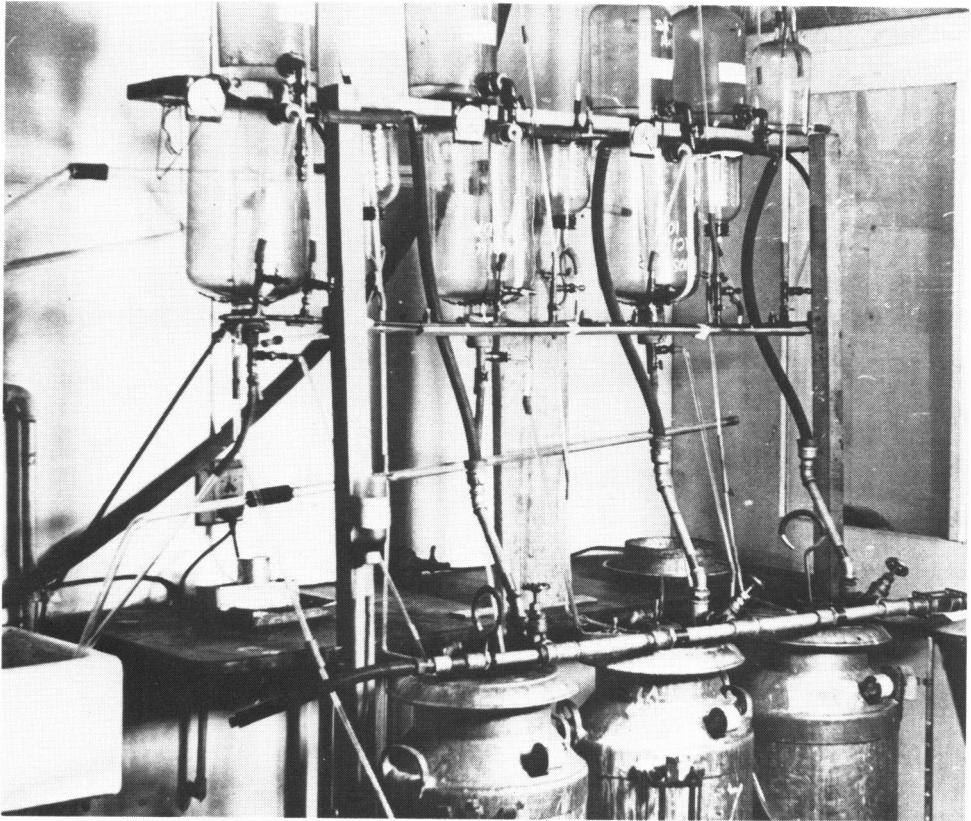


Figure 2. Two sections of the wartime plant for extraction of penicillin designed and built by A. G. Sanders and J. Kent (with help from G. Maskell) at the Sir William Dunn School of Pathology, Oxford, 1942–43. (Photographs in the Chain papers, Contemporary Medical Archives Centre, Wellcome Institute, London.)

### *Illustrations from the Wellcome Institute Library*

illustrated in Figure 2.<sup>1</sup> Chain's distress with the inadequate and ineffective funding of penicillin research was in part responsible for his move from England to become, in 1947, the Scientific Director of the International Research Centre for Chemical Microbiology at the Istituto Superiore di Sanità in Rome. There is administrative correspondence, including papers covering the prosecution of Marotta (the founder of the Institute) and Giacomello (his successor), research projects, and related papers. In 1964, Chain returned to England to take up his appointment as Professor of Biochemistry at Imperial College London, a post he held until 1973, and correspondence dealing with his appointment, retirement, and the Department of Biochemistry can be found here.

Amongst the papers relating to more than ninety societies and organizations with which Chain had dealings, there is lengthy and interesting correspondence covering grant applications and fellowships (such as the MRC Councils (1950–76), WHO (1948–74), and the Royal Society (1954–79)). Chain also maintained strong links with Jewish and Israeli societies, organizations, and academic institutions, notably the Weizmann Institute of Science (of which he was a Governor for many years and Vice-President from 1972). Additionally, his contacts with fifty industrial consultancies (the largest batch of papers relates to the Beecham Group) and his other collaborative research are well documented. In spite of suffering from asthma, Chain travelled and lectured a great deal, and material covering his lecture tours and journeys is in a further section. The general correspondence reads like a *Who Was Who*; it includes letters from Lord Blackett, Sir Charles Dodds, Sir Harold Himsworth, Sir Frederick Gowland Hopkins, Sir Hans Krebs, Sir Patrick Linstead, Sir Peter Medawar, Sir Edward Mellanby, Dr Walter Pagel, Sir Rudolph Peters, and various members of the Rothschild family.

<sup>1</sup> Readers might like to note that papers relating to penicillin from Dr Norman G. Heatley and Professor Ronald Hare have also recently been given to the Contemporary Medical Archives Centre.