

where he made the acquaintance of Sir Astley Cooper, whom he assisted in his work on hernia and first became impressed with the inefficiency of the older modes of teaching anatomy. In 1797 he returned to Dublin and set up in practice. Two years later he commenced clinical teaching and also lectured on surgery in his private rooms. In 1804 he was appointed professor of anatomy and surgery at the Royal College of Surgeons in Ireland and held that post for thirty-two years. He was also surgeon to Steeven's Hospital, and was twice president (in 1802 and 1830) of the Royal College of Surgeons in Ireland. Selections from his works consisting chiefly of "Practical Observations on the Venereal Disease", in which he maintained that syphilitic children nursed at the breast often infect wet nurses but never their own mother—an observation afterwards known as Colles's law—appeared in the *New Sydenham Society's* publications in 1881 under the editorship of Robert McDonnell. His name has also been attached to a fracture of the lower end of the radius, which he described in 1814 in the *Edinburgh Medical and Surgical Journal*.

Theodor Engelmann (1843–1909)

THEODOR WILHELM ENGELMANN, an eminent German physiologist, was born at Leipzig on November 14, 1843, the son of a well-known publisher. He received his medical education at Jena, Leipzig, Heidelberg and Göttingen, and qualified at Leipzig in 1867. Directly after qualification he became assistant to Donders at the Physiological Institute at Utrecht, where he was appointed professor of general biology and histology, and succeeded Donders in the chair of physiology in 1888. In 1897 he succeeded Du Bois-Reymond as professor of physiology at Berlin, where he died on May 20, 1909. His most important work was the discovery of the cones and pigment cells of the retina. Besides studying the mechanics and thermodynamics of muscular contractions, he published works on ciliary movement (1868), spectrophotometric observations and an obituary of Helmholtz (1897). He was also co-editor of *Archiv für Physiologie*. He was well known to physiologists in Great Britain, where he was elected an honorary member of the Physiological Society in 1898. He was elected an honorary member of the American Physiological Society in 1904.

Plans for International Trade

UNDER the title "New Plans for International Trade", the Institute of Statistics, Oxford, has issued a Supplement to its Bulletin (No. 5, Vol. 5) reviewing the principles embodied in the proposal of the British Treasury for an International Clearing Union and that of the American Treasury for an International Stabilization Fund. An introductory paper by the editor points out that international trade exists because some goods can be produced relatively cheaper in some countries than in others, and the aim of an international currency plan must be to lay down a code of rules which countries agree upon and can be relied upon to apply in international trade and finance in different circumstances. The test questions are: (1) Are adequate provisions made for furnishing each country with liquid reserves for re-starting international trade after the disruptions of the War and pre-war periods, as a means of enabling all countries to partake in international trade and reap the benefits of an exchange or loan of goods?

(2) How can we prevent countries from becoming illiquid again? (3) How can we keep check upon and regulate short-term borrowing and lending, if they are a disruptive element? (4) How can we make an international system workable and compatible with any form of social-economic organization and any internal policy which member countries might wish to adopt? (5) Can we introduce a steady expansionist force into international trade, which would neutralize, or, if necessary, over-compensate the effects of restrictionist policies of some member States on the rest of the trading community?

Discussing the British plan, which purports to exert pressure on any country whose balance of payments with the rest of the world is departing from equilibrium in either direction, E. F. Schumacher states that the plan aims at more than equilibrium but does not fully face the issues of exchange control. He concludes that it would create international liquidity on a generous scale—with all that this implies for the freedom and growth of international trade—and that it is imbued with a spirit of expansion and is groping, though not very successfully, for ways and means to create an international monetary mechanism favourable for expansion. The American plan does not seem to offer a workable system. Its principal defect is a quantitative one. Even if the Stabilization Fund were considerably enlarged, there would remain the difficulty that the Stabilization Fund technique itself imposes a more or less rigid maximum limit upon individual surpluses.

In the following paper, M. Kalecki and E. F. Schumacher propose an amendment to the British plan in which an orderly supply of purchasing power to deficit countries through long-term lending by the International Investment Board is made possible. The concluding paper, by T. Balogh, on "The Foreign Balance and Full Employment", examines further the question of how any single country can be enabled to maintain stability at full employment in a world system in which unemployment or inflation exists in other countries.

Dehydration of Food by Radio-Frequency Energy

THE Industrial Electronics Division of the Federal Telephone and Radio Corporation, co-operating with the Office of the Quartermaster-General of the United States Army, has developed a process of dehydrating food by means of radio-frequency energy. The process is described briefly by Vernon W. Sherman in a recent article (*Elec. Comm.*, 21, No. 2; 1943). The electronic dehydration method not only makes it possible to remove 99 per cent of the moisture content but it also permits this high degree of dehydration after the vegetables have been compressed into a small block or briquette 6 in. × 3 in. × $\frac{3}{4}$ in. Compression of vegetables prior to total dehydration is an unprecedented procedure, other processes requiring exposure of as much of the vegetable surface as possible to facilitate evaporation. With all but one per cent of the moisture removed, it is possible to pack all types of dehydrated vegetables in sealed containers and transport them to any part of the world without danger of decomposition. The length of time vegetables may be kept in good condition increases very greatly as the moisture content approaches one per cent. Evidence now indicates that vegetables dehydrated by the electronic method will not deteriorate over a period of one to two years even in hot, humid climates.