and Survivorships was founded and, until early in the nineteenth century, this was the only company having a substantial number of lives assured on its books. The lives represent a provident type drawn from the professional and business classes, with a sprinkling of landed gentry on one hand and of clerks and servants on the other. Three mortality experiences were quoted: Arthur Morgan's, 1762–1829; H. W. Manly's, 1863–1893; and a recent experience, 1924–1938. The rates of mortality were light and show a steady decrease up to about age 77. In the most recent experience the rates of mortality are about one fourth of those of the first experience up to age 47, and rather less than one half of those of the second experience. The proportional fall decreases at the older ages until there is little change from age 82 onwards. As regards the general population, the English Life Tables Nos. 3, 5 and 10 were used for comparison as they correspond most nearly in date to the assurance experiences. From No. 3 to No. 5 the mortality decreased by about one quarter at early adult ages and by about one tenth between ages 30 and 40. From then onwards No. 5 shows an increase in mortality over No. 3, and even though the methods of construction and reliability differ it seems probable that mortality actually increased. From No. 5 to No. 10 there was a decrease of about one half in the rates of mortality up to age 47, dropping to one tenth at age 77, and showing on the whole a smaller decrease at the later ages. These changes are similar to those between the two corresponding experiences of the assurance offices, though the general population has, as would be expected, a higher mortality than that of lives assured.

Control of Infectious Diseases

IN a Chadwick Lecture given on March 16 by Dr. Robert Cruickshank, of the L.C.C. Group Laboratory, it was stated that although the mortality from infectious diseases has steadily declined in the past half-century, approximately one out of every five deaths is at present due, directly or remotely, to infection. To assess the effect of past measures and as a guide to new methods of control, the bulk of infectious diseases can best be analysed in four main groups: (1) acute respiratory infections; (2) tuberculosis; (3) intestinal infections; and (4) childhood fevers (whooping cough, measles, diphtheria, scarlet fever, in that order of importance). The pneumonias and bronchitis are pre-eminent as a cause of death among the infections (they are third on the list among deaths from all causes); sulphonamides have failed to produce any striking reductions in the death-rate from these causes. A promising beginning has been made in the control of influenza, but the common cold is still a major public health and economic problem.

The upward trend of tuberculosis in war-time—the causes are hypothetical—has helped to accelerate measures for its better control; the role of artificial vaccination needs fresh consideration in Great Britain. Typhoid fever declined sharply coincidental with the introduction of the water-carriage system of sewage disposal, but paratyphoid, bacterial food-poisoning and bacillary dysentery are now more prevalent than they were. Their control will be closely linked with improved personal hygiene, particularly of food-handlers. The highly fatal gastro-enteritis of infancy is an unsolved problem needing urgent attention. Whooping cough is the most serious of childhood infections; it can be prevented or attenuated by prophylactic vaccination. Measles, itself a mild disease, is a menace because of its secondary complications. Diphtheria may not be wholly preventable but should cease to cause death. The means by which improvements in the control of infectious disease can be effected are: (1) administrative regionalization (with the medical officer of health, the practitioner and the bacteriologist as co-operative partners); (2) structural (improved design and equipment of hospital, school and home); (3) educational (of child, parent, nurse, student, medical man); (4) preventive (better feeding, better hygiene, artificial immunization, new methods for the control of air-borne infections).

Mild Winter of 1942–43

THE break in the series of severe war-time winters in Great Britain effected by the mild weather at the end of 1942 and in the early part of 1943 had an interesting effect upon the wild life of the English countryside compared with the previous three winters. Although in Scotland wildfowl and wild geese were reported to have been as numerous as in the previous season, in most parts of England the golden-eye, a characteristically abundant visitor in the previous war winters, was much less numerous. In west Cumberland in the middle of February the hatching of brown trout and sea-trout eggs was reported to be some thirty days in advance of the previous seasons, although in an article on "The Spawning Habits of Salmon" in the *Field* (February 6), G. M. King, clerk to the Dee Fishery Board, contends that in thirty-four years' experience he has failed to find that prevailing weather conditions affect the spawning time of these fish. In other parts of Lakeland there were many plants of red dead nettle, shepherd's purse, red campion, ivy-leaved toadflax, etc., in flower at Christmas. Over England generally the yellow winter jasmine was reported to have given one of the finest flowering displays for many years, and the songs of the song-thrush and skylark commenced several days earlier than usual. The missel-thrush was reported sitting on its nest in North Wales in February, and the song-thrush nest-building in Lancashire on February 6, and sitting on eggs on February 17. In Sussex and most other parts of Great Britain the exceptionally early pairing of partridge was also noted; in Cumberland these birds had paired by Christmas. Another Sussex feature was the early breeding of rabbits. From the Home Counties there were many early reports of hazel flowers, male and female, recorded in the *Times* in January.

Recording Technique in Electro-Biology

AN interesting paper entitled "Amplifying and Recording Technique in Electro-Biology, with Special Reference to the Electrical Activity of the Human Brain" was read by G. Parr and W. Grey Walter at a meeting of the Wireless Section of the Institution of Electrical Engineers on March 3. One of the fundamental properties of the living cell is the production of an electromotive force, which changes when the cell is stimulated into activity. In order to study the nature and magnitude of these biological E.M.F.'s, special amplifying methods and input circuits are required, operating suitable visual, photographic or pen-writing recorders. The paper referred to reviews the standard methods of obtain-