

etc., of various animals commonly kept in laboratories, will shortly be published on behalf of the Federation, which is also founding a research studentship for the investigation of more humane methods of dealing with rodent control. The occupant of this post will spend at least a year investigating the possibility of developing a more humane poison than those now in general use and also other methods of controlling the rodent population in a particular district. Dr. J. R. Baker said that in Great Britain obvious cruelty to animals has been almost eliminated, but much suffering is still caused by thoughtless actions. Accurate knowledge of animal life is necessary, and the zoological departments of universities should be especially active in the cause of animal welfare. Major C. W. Hume, Chairman of the Federation, said that apathy towards the reasonable rights of animals is due partly to a reaction against cranks, but mainly to imperfect education in the sense of a lack of broad culture. The Universities Federation for Animal Welfare works in harmony with the Royal Society for the Prevention of Cruelty to Animals and kindred societies, and their functions do not overlap. During the present century science has been gradually coming into its own in public affairs, and many Government departments now have a staff of scientific advisers. The place of the Federation in the animal-welfare movement is somewhat analogous; but although most of its activities hitherto have had a scientific quality, there are other fields of thought and knowledge to which it must turn its attention, notably jurisprudence, pedagogy and the psychology of man's behaviour in relation to animals. The address of the Federation is 284 Regent's Park Road, London, N.3.

### Indexing and Filing

A ONE-DAY conference convened by the Association of Special Libraries and Information Bureaux was held at Friends House, London, on February 15, to discuss problems connected with the indexing and filing of unpublished material. Some hundred and fifty members and guests were present. The chair was taken by Captain Harry Ward, secretary of the Industrial Management Research Association, and papers were presented by Miss M. Shaw on "The Indexing and Filing of Correspondence in the Laboratories of J. Lyons & Co., Ltd.", Dr. Holmstrom of I.C.I., Ltd., on "Moot Points in the Filing of Business Correspondence" and Mr. K. S. Jefferies of the Treasury on "The Practice of the Civil Service". These were followed by Miss L. G. Thomerson of the Printing and Allied Trades Research Association, Mr. A. E. Dodd of the British Refractories Research Association, Mr. W. Ashworth of the British Cast Iron Research Association, and Miss D. Knight of the National Institute for Research in Dairying, who described the schemes used by their organisations to deal with technical data contained in correspondence, certificates of tests, technical reports and other unpublished material. Interesting points that emerged from the discussion were the importance of the routine handling of such documents and the widespread misconception that 'filing' is an unskilled job. The Association of Special Libraries and Information Bureaux was urged to investigate the present facilities for training and to formulate the qualifications needed for such posts. If the demand is sufficient it is hoped to publish the proceedings of the conference together with a summary of the discussions. Non-members interested should notify the General Secretary, ASLIB, 52 Bloomsbury Street, London, W.C.1.

### Green Crops for the Market

THE Ministry of Agriculture and Fisheries is replacing Bulletin No. 53, "Cabbages and Related Green Crops", by two publications, which deal with the subject in greater detail. Bulletin No. 132, "Cabbages, Brussels Sprouts and Miscellaneous Green Crops" (Pp. 30+15 plates. H.M. Stationery Office. 1s. 0d. net) has now appeared. It has been produced by a committee headed by Mr. F. A. Secrett and is a really sound practical handbook. Such modern developments as irrigation and transplanting by machine are discussed; it seems important that irrigated soil should be worked soon after the water has been given, and mechanical planters should be used on soil which has been rolled. Firm planting is a necessity. In wet districts a 'rucker' or mechanical device for making small mounds of soil is drawn down the drills before planting. This drains away excess water from the young plants, for too much water is as bad as too little. One useful paragraph outlines routine measures of pest control in the seed bed, with applications of naphthalene, calomel and nicotine or pyrethrum. A casual statement that liming provides a permanent cure for club-root disease will strike a north of England grower as too facile a dismissal of the problem; it does not seem to work there or in Scotland. The rest of the advice about pests and diseases is sound, however, and the grower will find very useful information about cultivation, manuring, varieties and marketing. A calendar for the production of cabbage and savoy throughout the year in the south of England is given, and local practices in the main production centres are described. "Miscellaneous Green Crops" mentioned in the title include sprouting broccoli and kale.

### Behaviour of Bees when Foraging

IN the *Journal of the Royal Society of Arts* (August 1945), Dr. Colin G. Butler of the Rothamsted Experimental Station discusses this subject. It appears that when a bee works a group of plants, she almost always alights on one particular plant and returns to it when about to take off for the homeward journey back to the hive. The factor which decides whether a young bee will become a member of a fixed 'population' of a foraging area is the time taken to fill her honey-sac. If this takes longer than 30-60 minutes she will wander to another area. If, on the other hand, she has collected a full load in a given time she makes orientation flights over the area before returning to the hive, observing landmarks by means of which she can locate it again. On subsequent foraging expeditions she flies straight to this area upon which she has decided and continues to visit it. The author also discusses the value and importance of bees in the pollinating of orchards. Fruit-growers are often willing to pay good prices to beekeepers who are willing to move their hives into orchards for four or five weeks while the trees are in bloom. Dr. Butler points out that as much as £3 has been paid for the use of a colony of bees during this period. The average rent seems to be about £1 per colony, and the author would like to see a minimum strength of colony for pollination decided upon on a systematic basis. Whether the honeybee is a more efficient pollinator than various other insects is a question that is sometimes asked; but Dr. Butler believes that bees as a group are better in this connexion than flies, moths, etc.