

practice of utilising suckers, carelessly taken from plum orchards for propagation purposes, owing to the risk of working stocks infected with 'silver leaf'.

The thorny subject of pruning is dealt with in a masterly manner, and the section devoted to this important operation will appeal to the many amateur fruit-growers who, owing to well-meant but occasionally contradictory suggestions of numerous advisers, are hopelessly at sea on this matter. The general principles are clearly indicated; it is pointed out that no hard and fast rule can be applied to all species and varieties, but that the system of pruning should be modified in accordance with their special characteristics.

It is doubtful if the extended commercial cultivation of pears in Great Britain is worthy of consideration, as imported produce of high quality is now available for the greater part of the year. Much useful information respecting up-to-date storage methods is contained in a chapter devoted to this subject, but further research is needed.

Renovation of old orchards and the control of pests and diseases of fruit trees are ably dealt with, and the bulletin should be in the hands of all who wish to see

an improvement in the general standard of fruit culture, and are interested in the future of an important home industry.

Bulletin No. 4 deals with 'soft fruits', which now form an important section of the British fruit industry, and its contents comprise the more important results attained by research workers, and also details of sound cultural methods.

The descriptive lists of standard commercial varieties should be of great assistance to intending planters, and information respecting varieties suitable for canning will enable growers to cater specially for this purpose. Black currants and gooseberries in recent years have failed to give remunerative returns, and the area devoted to these crops will probably decrease. Figs and melons are among the fruits included in the bulletin, but their commercial cultivation is likely to remain in the hands of a comparatively few growers. Cob nuts and filberts realise high prices and there appears to be ample scope for their extended cultivation; the nut is not fastidious as to soil, but possibly the prevailing system of land tenure is responsible for the small area devoted to this and other 'permanent' crops.

Rainfall of the United States.

SUPPLEMENT Number 34 of the *Monthly Weather Review* of the United States Department of Agriculture is a summary giving the main results of fifty years of organised rainfall measurement, in the form of daily, fortnightly, monthly, and annual normals of precipitation for the regular first order stations of the U.S. Weather Bureau.

The need for a revision of the normals for the United States available before this publication appeared arises from the fact that the last revision was made so long ago as 1907, since when many new stations have been started. The new normals all refer to the period January 1878 to December 1927 inclusive. Where a complete record has not been available, the usual procedure has been adopted, namely, an adjacent station has been selected for which the full fifty years' record is available, and its measurements have been compared with those at the station with the incomplete record throughout the period of overlap of the two records. In this way the relative degree of wetness has been obtained, and thence a correction which, when applied to the normal computed from the period of overlap, gives a close approximation to the required normal.

A publication of this kind, consisting of little more than a vast array of figures in tabular form, is clearly

not to be regarded as reading matter in the ordinary sense even for the expert meteorologist. It would, however, have been more nearly so had there been a key map showing the positions of all the places for which normals are given, preferably with shaded or coloured altitude zones, and any other features that might assist in explaining the great diversity in the amount and seasonal distribution of the precipitation, which a careful inspection of the tables reveals. For the work has under review the rainfall of a country in which virtually rainless areas exist side by side with areas of great altitude and wetness, where lofty mountain peaks force the moist westerlies from the Pacific to rise and undergo such dynamical cooling that a large proportion of their moisture is condensed to rain or snow. A rapid survey of the normal annual falls did not reveal any total that is not surpassed in the Lake District of England, but showed many smaller than can be found anywhere in the dry eastern lowlands of England and Scotland. Yuma, Arizona, has the interesting annual normal of 3.47 inches, based on a full fifty years' record.

In addition to its value in general climatology, this work is obviously of the first importance to American water engineers and to many of the industries of the States, particularly farming. E. V. N.

Parliamentary Representation of the Universities of Great Britain.

IN view of the clause relating to the abolition of university constituencies which appears in the Representation of the People Bill, the text of which has recently been issued, a joint memorandum has been submitted to the electors of the Universities of Oxford and Cambridge by their present parliamentary representatives. The memorandum gives a brief history of university representation in Great Britain. In 1603 James I. by a charter issued on the advice of his Attorney-General, Sir Edward Coke, granted to the Universities of Oxford and Cambridge the right, which they have ever since enjoyed, of each returning two burgesses to Parliament. A similar right of representation in the Irish Parliament was accorded to Trinity College, Dublin, ten years later. By the time of the outbreak of the War there were nine

university members in the House of Commons, returned by the following constituencies:

	Voters.
Oxford (2)	6,895
Cambridge (2)	7,145
Dublin (2)	5,020
London (1)	6,070
Edinburgh and St. Andrews (1)	11,319
Glasgow and Aberdeen (1)	11,714
	48,163

A large measure of parliamentary reform and a great extension of the franchise were undertaken by the Coalition Government in 1918. Three new university constituencies, the Combined English Universities,