

Review

Identification of Hardwoods

A Microscope Key

Bulletin No. 46

Forest Products Research

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THIS is the third in a series on timber identification issued by the Department of Scientific and Industrial Research for Forest Products Research Laboratory, Princes Risborough. The previous two publications, "Identification of Softwoods" and "Identification of Hardwoods—a lens key" and its supplement "An Atlas of End-grain Photomicrographs", are invaluable to the worker on timber identification.

The Bulletin includes descriptions of the anatomical features, as seen with a microscope, of about 380 commercial hardwoods which are of economic importance in the United Kingdom. The features are set out in coded form for recording on marginally perforated cards and a sample can be identified by sorting the prepared cards according to the features observed in it.

The book contains explanatory notes on the construction and use of the card key and sections on definitions of the diagnostic features used in the key, on standard reference works and on coded descriptions. The section setting out the coded descriptions of the several timbers forms the body of the work. The diagnostic features are numbered so that sycamore or maple is represented thus:—

Acer spp. 6, 9, 18, 30, **30**, 33, 44, 45, 46, 47, (48), 62, 69, 70,
74, 80, 84

Supplementary notes expand the information when further clarification is necessary. Where timbers are similar in anatomical structure as in Liquidamber, Magnolia and Tulip-tree wood a key within the Key has been given to separate these. A sample card for a common timber, say sycamore, on which the anatomical features had been punched would have illustrated more effectively the explanatory notes on cards used in the key than the fragment of notched card figured.

Whereas the Lens Key is more useful in the field, office or timber yard the Microscope Key reaches out to the worker having laboratory facilities. To use this key it is necessary to cut thin sections in three planes with a microtome knife. Microanatomical differences often have an important bearing on the technical properties of timber so that detailed work is essential for distinguishing timbers which appear similar.

Only botanical names are given. This seems a pity as trade names are widely used by laymen and specialists in timber matters. One looks in vain for ebony or teak; one must know that they are *Diospyros* sp. and *Tectona* sp.

Photomicrographs of transverse, radial-longitudinal and tangential-longitudinal sections of wood magnified up to 400 illustrate the Bulletin. The plates are evidence of skilled techniques in photomicroscopy; they are also of high artistic merit.

The book, of 96 pages and bound in paper, is moderately priced at ten shillings. There are 32 plates (in the review copy plates 1-16 are missing), a line drawing and a map showing the geographical regions. The cards cost £1 1s. 0d. per 100; it is estimated that 900 cards are required to prepare the key.

Bulletin No. 46 provides a long needed guide to the identification of hardwoods. It can be highly recommended.

M.S.