List of Publications on

LOGGING, MANUFACTURE, AND UTILIZATION OF TIMBER, LUMBER, AND OTHER WOOD PRODUCTS

August 1944



FOREST RESEARCH LABORATORY
LIBRARY

No. R790

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE FOREST PRODUCTS LABORATORY Madison, Wisconsin In Cooperation with the University of Wisconsia

TABLE OF CONTENTS

This list includes publications that present the results of research by the Forest Products Laboratory on methods and practices in the lumber producing and wood-consuming industries; standard lumber grades, sizes, and nomenclature; production and use of small dimension stock; specifications for small wooden products; utilization of little-used species and commercial woods; and low-grade and wood-waste surveys. Included also are other Government and commercial publications on these subjects.

	Page
INSTRUCTIONS FOR OBTAINING THESE PUBLICATIONS	2
GENERAL ECONOMIC REPORTS	3
LOGGING	3
MANUFACTURE. (See also UTILIZATION, by species)	6
MARKETING (FARM AND WOODLOT TIMBER)	7
GRADES, SPECIFICATIONS, AND STANDARDIZATION	8
Defects and blemishes	9
UTILIZATION:	
General reports	12
Waste Small dimension stock	20
MISCELLANEOUS	22
STATISTICS OF PRODUCTION AND CONSUMPTION	25
OTHER LISTS OF FUBLICATIONS	25
OTHER PUBLICATION LISTS ISSUED BY THE FOREST PRODUCTS LABORATORY	. 26

INSTRUCTIONS FOR OBTAINING PUBLICATIONS

Publications available for distribution at this Laboratory are marked with an asterisk (*).

Single technical notes, reprints, and mimeographed reports may be obtained free upon request from the Director, Forest Products Laboratory, Madison 5, Wis. A bound volume of the technical notes only, containing the notes listed here and notes dealing with other subjects, in all more than 100 notes, may be purchased for \$1.00. (This volume does not include the reprints and mimeographed reports mentioned in the list.) Remittance should accompany your order and be made by certified check or postal money order to the Treasurer of the United States.

Federal Government bulletins, circulars, leaflets, etc., if not available for free distribution at this Laboratory, may be purchased at the prices indicated from the Superintendent of Documents, Government Printing Office, Washington, D. C. Send money order, draft, or cash; stamps or personal checks are not accepted.

Trade journals containing articles herein listed may often be purchased from the publishers or may be consulted in various libraries.

The Forest Products Laboratory reserves the right to furnish only those publications which in its judgment will give the information requested. Blanket requests or requests for a large number of copies of any individual article will not be filled except in unusual cases.

GENERAL ECONOMIC REPORTS

- Distribution of softwood lumber in the middle west, wholesale distribution, by O. M. Butler. U. S. Dept. Agr., Off. of Sec. Report 115. 1917. (U. S. Dept. Agr. Studies of the lumber industry, Ft. 8.) Out of print.
- Distribution of softwood lumber in the middle west, retail distribution, by O. M. Butler. U. S. Dept. Agr., Off. of Sec. Report 116. 1918. (U. S. Dept. Agr. Studies of the lumber industry, Pt. 9.) Out of print.
- Economic aspects of forest destruction in northern Michigan, by W. N. Spar-hawk and W. D. Brush. U. S. Dept. Agr. Tech. Bul. 92, 1929, 25¢.
- Economic and social importance of a sustained supply of raw material for the wood-using industries in the Lake States, by R. D. Garver. (Paper presented at the Lake States Forestry Conference, Madison, Wis., Apr. 24-25, 1935.)
- Forest land resources, requirements, problems, and policy. Natl. Resources Planning Board, 17th St. & Pa. Ave., NW., Washington, D.C. 1935. 50ϕ .
- National plan for American forestry: report on Senate Resolution 175, by U. S. Forest Service. (Known as Copeland Report.) 2 v., 1933. \$1.75.
- Some public and economic aspects of the lumber industry, by W. B. Greeley. U. S. Dept. Agr., Off. of Sec. Report 114. 1917. Out of print. (May be consulted in U. S. depository libraries.)
- Timber depletion and the answer; summary of report on timber depletion and related subjects, prepared in response to Senate Resolution 311, by U. S. Forest Service, U. S. Dept. Agr. Circ. 112. 1920. 5ϕ .
- Timber depletion, lumber prices, lumber exports, and concentration of timber ownership; report on Senate Resolution 311, by U. S. Forest Service. 1920. (Known as Capper Report.) Out of print. (May be consulted in U. S. depository libraries.)
- Forest resources of the world, by Raphael Zon and W. N. Sparhawk. 2 v. 1923. McGraw-Hill Book Co., Inc., New York City. \$12.

LOGGING

- American logging and sawmill safety code. U. S. Bur. Standards Handbook Ser. 5. 1924. Paper 40ϕ ; cloth 60ϕ .
- Another reason why small trees should not be cut, by R. D. Garver and R. H. Miller. Jour. Forestry, May 1933.
- *Cutting cull second-growth trees to improve hardwood stands, by J. B. Cuno. South. Lbrman., Dec. 15, 1930.

LOGGING (continued)

- Cutting hardwood timber in the southern Appalachians, by J. B. Cuno. South. Lbrman., Dec. 15, 1929.
- *Cutting the farm woodlot "profitwise," by R. D. Garver. U. S. Dept. Agr. Leaflet 30. 1928.
- Efficient logging practice, by R. D. Garver. Forestry in Wisconsin: official report of Wisconsin Commercial Forestry Conference, 1928. p. 94-95. H. L. Ashworth & Co., Milwaukee, Wis. 1928.
- Flexible logging equipment aids utilization, by A. H. Hodgson. West Coast Lbrman., Sept. 1, 1926.
- *Forest Products Laboratory study to help small mill situation, by C. J. Telford. South. Lbrman., July 15, 1930.
- Instructions for appraising stumpage on national forests. U. S. Forest Service. (Misc.). Rev. 1922. 10ϕ .
- Instructions for the scaling and measurement of national forest timber. U. S. Forest Service. Rev. 1935. 15ϕ .
- Logging in the Douglas fir region, by W. H. Gibbons. U. S. Dept. Agr. Bul. 711. 1918. 30ϕ .
- Montana forest and timber handbook, by R. N. Cunningham, S. V. Fullaway, Jr., and C. N. Whitney. Feb. 1926. (State Univ. Montana Studies 1.)
- *The portable band sawmill and selective logging in the loblolly pine forests of North Carolina, by R. D. Garver and J. B. Cuno. U. S. Dept. Agr. Tech. Bul. 337. 1932.
- Log scale vs. lumber tally: a discussion of overrun and the factors affecting it, by M. Bradner and Philip Neff. Timberman, July 1926.
- Quality vs. size as an index to a profitable tree: loblolly pine, by B. H. Paul. Jour. Forestry, Nov. 1932.
- Relation of tree size to output for southern hardwoods, by R. D. Garver and R. H. Miller. South. Lbrman., Feb. 15, 1934.
- *Sawmills pay more for logs that are correctly bucked, by J. B. Cuno. U. S. Dept. Agr. Yearbook Separate 1233. 1931.
- Selective logging in the national forests, by C. B. Morse. Timberman, Nov. 1928.
- Selective logging as a protective measure, by R. D. Garver. Ga. Forest Service Bulletin 11, p. 37-40. 1930.

-4-

LOGGING (continued)

- *Selective logging in the loblolly and longleaf pine forests of South Carolina, by R. D. Garver and J. B. Cuno. Mimeo. R1056. 1935.
- Selective logging in the loblolly pine-hardwood forests of the Middle Atlantic Coast Flain with special reference to Virginia, by R. D. Garver, J. B. Cuno, C. F. Korstian, and A. L. MacKinney. Va. Forest Service Fub. 43. 1931. Out of print.
- *Selective logging in the northern hardwoods of the Lake States, by Raphael Zon and R. D. Garver. U. S. Dept. Agr. Tech. Bul. 164. 1930.
- Selective logging in the shortleaf and loblolly pine forests of the Gulf States Region, by R. D. Garver and R. H. Miller. U. S. Dept. Agr. Tech. Bul. 375. 1933. 5¢.
- *Selective logging of southern pine, by R. D. Garver. Lbr. Trade Jour., Apr. 1, 1930; South. Lbrman., May 1, 1930.
- *Selective logging vs. clear cutting in shortleaf pine, by R. D. Garver. Lbr. Trade Jour., Oct. 15, 1930; South. Lbrman., Oct. 15, 1930.
- Tables for determining contents of standing timber in Minnesota, Michigan, and Wisconsin, comp. by Cloquet Forest Experiment Station and the Lake States Forest Experiment Station. Minnesota Agr. Experiment Station Tech. Bul. 39. 1926.
- Timber cutting by selective logging replacing old way, by Raphael Zon. U. S. Dept. Agr. Yearbook 1927, p. 615-17. 1928.
- Timber growing and logging practice in the California pine region, by S. B. Show and W. B. Greeley. U. S. Dept. Agr. Bul. 1402. 1926. 10ϕ .
- Timber growing and logging practice in the central hardwood region, by C. R. Tillotson and W. B. Greeley. U. S. Dept. Agr. Bul. 1491. 1917. 15ϕ .
- Timber growing and logging practice in the coast redwood region of California, by S. B. Show and R. Y. Stuart. U. S. Dept. Agr. Tech. Bul. 283. 1932. 5¢.
- Timber growing and logging practice in the Douglas fir region, by T. T. Munger and W. B. Greeley. U. S. Dept. Agr. Bul. 1493. 1927. 15ϕ .
- Timber growing and logging practice in the Lake States, by Raphael Zon. U. S. Dept. Agr. Bul. 1496. 1928. 20¢.
- Timber growing and logging practice in the western white pine and larch-fir forests of the northern Rocky Mountains, by Elers Koch, R. N. Cunningham, and W. B. Greeley. U. S. Dept. Agr. Bul. 1494. 1927. Out of print. (May be consulted in U. S. depository libraries.)

LOGGING (continued)

Will sustained yield in lumber operation come through regulation or through competition? by F. J. Hallauer. Jour. Forestry, Nov. 1930.

MANUFACTURE

- *Change in moisture content of lumber during rail shipment, by G. E. French. Sept. 1927. Forest Products Laboratory Mimeo. R826.
- *Costs of plain and quarter-sawing southern white oak, by R. D. Garver and R. H. Miller. South. Lbrman., Feb. 15, 1936. Mimeo. R986.
- *Cost of producing white pine lumber in New England, by V. S. Jensen, C. E. Behre, and A. O. Benson. U. S. Dept. Agr. Circ. 557. 1940.
- How small southern pine mills can reduce their losses, by C. J. Telford. South. Lbrman., Mar. 15, 1933.
- *Operating small sawmills, methods, bibliography, and source of equipment, by C. J. Telford. Forest Products Laboratory Mimeo. R1083. Mar. 1936.
- Portable band sawmills, by R. D. Garver. Amer. Lbrman., July 26, 1930; Jour. Forestry, Dec. 1930.
- Portable band sawmills and selective logging in second-growth loblolly pine, by R. D. Garver. Jour. Forestry, Jan. 1933.
- *Effect of resaw on output of single band mills in southern hardwoods, by R. D. Garver and R. H. Miller. Amer. Lbrman., May 27, 1933; Forest Products Laboratory Mimeo. R1245
- Ripping and trimming shortleaf lumber to increase its value, by R. D. Garver. Lbr. Trade Jour., Apr. 15, 1929.
- Sawmill efficiency not measured by volume of production: comparison of cutting up logs and sawing lumber in the Inland Empire, by M. Bradner. Timberman, June 1927.
- Sawmill's indirect costs often ignored by farmer operators, by C. J. Telford. U. S. Dept. Agr. Yearbook, 1931. pp. 469-71.
- Sawmills profit by closely controlling thickness of boards, by C. J. Telford. U. S. Dept. Agr. Yearbook, 1931. pp. 472-4.
- New tube-cutting method for making bobbin blanks and similar products, by Joe Donny. Wood Products, Feb. 1944; Canadian Woodworker, Feb. 1944; Natl. Hardwood Mag., Apr. 1944; Barrel & Box & Packages, May 1944.
- *Equipment and methods for harvesting farm woodland products, by C. J. Telford. U. S. Dept. Agr. Farmers' Bul. 1907. 1942.

MANUFACTURE (continued)

- Small sawmill improvement, practical pointers to field agencies:
 - *Items of cost usually ignored. Forest Products Laboratory Mimeo. R899. 1930.
 - *Waste from variation in sawing precision. FPL Mimeo. R899-2. 1930.
 - *When to move portable mills. FPL Mimeo. R899-3. 1931.
 - *Accounting: single logging chance as unit. FPL Mimeo. R899-4. 1931.
 - *Dipping tanks and truck-loading scaffolds. FPL Mimeo. R899-6. 1931.
 - *Air seasoning at small mills. FPL Mimeo. R899-8. 1932.
 - *A boilerless kiln for portable mills. FPL Mimeo. R899-9. Rev. 1943.
 - *Layouts and sheds for small mills. FPL Mimeo. R899-10. 1933.
 - *Setting up a ground mill. FPL Mimeo. R899-11. 1935.
 - *Small sawmill accounting. FPL Mimeo. R899-12. 1940.
 - *Short-cut method of finding the minimum sized tree that pays its way through small sawmill operations. FPL Mimeo. R899-13. 1940.
 - *Plan of semipermanent small mill. FPL Mimeo. R899-14. 1941.
 - *Plan for small mill lumber treating equipment. FPL Mimeo, R899-15. 1942.
 - *Methods of loading lumber at the rear of the mill. FPL Mimeo. R899-16.1942.
 - *A truck-mounted hoist. FPL Mimeo. R899-17. 1944.
 - *Scale boards. FPL Mimeo. R899-18. 1944.
 - *Efficient use of power on the headsaw. FPL Mimeo. R899-19. 1944.
 - *Saw lead. FPL Mimeo. R899-20. 1944.
 - *Small mill conveyor. FPL Mimeo. R899-21. 1944.
- *Small sawmill utilization of Appalachian hardwoods for ties, by R. D. Garver. Cross Tie Bul., Mar. 1931. Mimeo. R1086.
- Tests of Scandinavian gang saws on Pacific Coast. Report of the Natl. Comm. on Wood Utilization, U. S. Dept. Com. 1929. 10¢.
- *Woods and mill studies of the manufacture of birch, beech, and maple lumber in the Northeast. FPL Mimeo. R1217, Dec. 1939.
- *Operating small sawmills in wartime, by C. J. Telford. U. S. Dept. Agr. Misc. Pub. 509, 1943.

MARKETING (FARM AND WOODLOT TIMBER)

- Amount of solid wood per cord of sticks of different diameters, by Lake States Forest Experiment Station, St. Paul, Minn.
- Cooperative marketing of woodland products, by A. F. Hawes. U. S. Dept. Agr. Farmers' Bul. 1100. 1920. Out of print.
- *Cutting the farm woods "profitwise," by R. D. Garver. U. S. Dept. Agr. Leaflet 30. 1928.
- Forestry and farm income, by W. R. Mattoon. U. S. Dept. Agr. Farmers' Bul. 1117. Rev. 1940. 5ϕ .

MARKETING (FARM AND WOODLOT TIMBER) (continued)

- Forestry lessons on home woodlands, by W. R. Mattoon and Alvin Dille. U. S. Dept. Agr. Bul. 863. Rev. 1930. 10¢.
- Logs from the woodlot may be sold profitably on a log-grade basis, by R. H. Miller. U. S. Dept. Yearbook, 1932.
- Making woodlands profitable in the southern states, by W. R. Mattoon. U. S. Dept. Agr. Farmers' Bul. 1071. Revised 1926. 5ϕ .
- *Marketing dimension stock, by A. O. Benson. South. Lbrman., July 1, 1931; Wood Working Indus., July 1931; Hardw. Rec., July 1931; Amer. Lbrman., Aug. 22, 1931.
- *Measuring and marketing of farm timber, by W. R. Mattoon and W. B. Barrows. U. S. Dept. Agr. Farmers' Bul. 1210. Rev. 1940.
- *Profits from farm woods, by W. R. Mattoon. U. S. Dept. Agr. Misc. Pub. 87. 1930.
- *Prospective markets for small hardwoods through mechanical and chemical fabrication, by R. D. Garver. South. Lbrman., Dec. 15, 1930; Central States Forestry Congress Proc. 1930, pp. 163-70.
- Woodlot too valuable for pasture use, by C. R. Tillotson, U. S. Dept. Agr. Yearbook, 1926, pp. 776-79. 1927.

GRADES, SPECIFICATIONS, AND STANDARDIZATION

- *ASTM structural timber grading standard now approved by ASA as American standard, by L. J. Markwardt. Indus. Standardization, Mar. 1940. Mimeo.Rl237.
- Basic grading rules and working stresses for structural timbers as recommended by the Dept. of Agriculture, by J. A. Newlin and R. P. A. Johnson. U. S. Dept. Agr. Circ. 295. 1923. Out of print. (May be consulted in U. S. depository libraries.)
- *The density of southern pine; its significance in terms of properties and grades, by E. M. Davis. South. Lbrman., Dec. 17, 1927.
- *Development of lumber standards, by E. M. Davis. Amer. Architect, July 20,1926.
- *Explanation of American lumber standards, by C. V. Sweet. U. S. Dept. Agr. Misc. Pub. 107. 1931.
- *Grading hardwood logs by the cutting system, by A. O. Benson. South. Lbrman., Dec. 15, 1941.
- Grade-marking of lumber for consumers' protection. Report of the National Comm. on Wood Utilization of the Dept. of Com. 1928. 5¢.

GRADES, SPECIFICATIONS, AND STANDARDIZATION (continued)

- *Guide to the grading of structural timbers and the determination of working stresses, by T. R. C. Wilson. U. S. Dept. Agr. Misc. Pub. 185. 1934.
- *Supplement to U. S. Dept. Agr. Misc. Pub. 185 (Supplement entitled "Provisions for structural dimension joists and plank in grades having less than 50 percent of the strength of clear material"), by T. R. C. Wilson. FPL Mimeo. R1225. May 1940.
- How lumber is graded, by H. S. Betts and R. K. Helphenstine. U. S. Dept. Agr. Circ. 64. Rev. 1933. 10¢.
- Nearest comparable grades of yard lumber: products cut from various species of softwood. (Chart) U. S. Forest Service in cooperation with the Natl. Lbr. Mfrs. Assn., 3d ed. Rev. 1927.
- A new approach to hardwood log grades, by A. O. Benson. South. Lbrman., July 1, 1940.
- Size of knot, by J. A. Newlin. Wood Pres. News, Apr. 1940.
- Size of timber, amount of defect, important factors in lumbering, by M. Bradner and S. V. Fullaway, Jr. Timberman, Dec. 1927-Apr. 1928.
- *Something new in hardwood log grades, by A. O. Benson. Journal of Forestry, Jan. 1941. FPL Mimeo. R1271.
- Standard grading specifications for yard lumber as recommended by the Dept. of Agr., by E. P. Ivory and others. U. S. Dept. Agr. Circ. 296. 1923. Out of print. (May be consulted in U. S. Depository libraries.)
- Standard specifications for structural wood joist and planks, beams, and stringers, and posts and timbers. Amer. Soc. Testing Materials Standards 1930, Pt. 2, p. 754-814. (D245-30), 25¢.
- United States Government master specifications for lumber: softwood, yard, and factory (No.533A), by U.S. Federal Specifications Board. Rev. 1927. (Mimeo.)
- *Useless clause in pole specifications, by R. P. A. Johnson. Elect. World, Jan. 17, 1931.
- Why should hickory be graded on color specifications? by B. H. Paul, Wood Working Indus., Apr. 1925.
- Wood selection rules help but should not be followed blindly, by A. O. Benson. U. S. Dept. Agr. Yearbook, 1928, pp. 626-27.

Defects and Blemishes

Avoidable defects and sales appeal, by E. M. Davis. South. Lbrman., Mar. 15, 1932.

GRADES, SPECIFICATIONS, AND STANDARDIZATION (continued)

Defects and Blemishes (continued)

- *Cause and prevention of blue stain. Forest Products Laboratory Tech. Note 225. Revised 1941.
- *Characteristic defects of cypress yard lumber, by E. M. Davis. Forest Products Laboratory Mimeo. R956. 1932.
- Dry-rot in buildings and stored construction materials and how to combat it, by C. J. Humphrey and L. E. Miles. Ala. Polytech. Inst. Circ. 78, 1925.
- *Grain of the wood with special reference to the direction of the fibers, by Arthur Koehler. West Coast Lbrman., July 15, 1918; Sci. Amer. Sup., Sept. 7, 1918. Mimeo. R262.
- Knots in second-growth pine and the desirability of pruning, by B. H. Paul. U. S. Dept. Agr. Misc. Pub. 307. 1938. 10¢.
- Mill practices that influence the occurrence of sap stain in lumber, by Ira Hatfield. South, Lbrman., Aug. 15, 1935.
- Pitch pockets and their relation to the inspection of airplane parts, by J. R. Watkins. Jour. Franklin Inst., Aug. 1919.
- Pith-ray flecks in wood, by H. P. Brown. U. S. Forest Service Circ. 215, 1913. Out of print. (May be consulted in U. S. Depository libraries.)
- Spiral and diagonal grain in wood, by Arthur Koehler. Indus. Arts Mag., May 1924.
- *Yellow stain on hardwood. Forest Products Laboratory Tech. Note 166. 1922.

UTILIZATION

General Reports

- *Artificial aging of wood for paneling. FPL Mimeo. R965. Apr. 1932.
- *Efficient forest utilization, a major factor in an effective national forest policy, by C. P. Winslow. Jour. Forestry, Jan. 1924; Paper Trade Jour., Mar. 13, 1924. Misc. Mimeo.
- Industrial outlets for short-length softwood yard lumber, by E. M. Davis. U. S. Dept. Agr. Circ. 393. 1926. Out of print.
- *Looking forward to better forest utilization, by C. P. Winslow. Amer.Lbrman., Jan. 4, 1930; South. Lbrman., Jan. 1, 1930.
- *Pictured good and poor practice in frame house construction details. FPL Tech. Note 242. 1940.
- Possibilities of more complete forest utilization in the Lake States, by integration of industries, by R. D. Garver. Amer. Lbrman., June 16, 1928.

General Reports (continued)

- *Properties and uses of some of the more important woods grown in Brazil, by E. E. Horn. Forest Products Laboratory Mimeo. R83. 1918.
- Report of the national conference on utilization of forest products, Washington, D.C., Nov. 19-20, 1924. U. S. Dept. Agr. Misc. Circ. 39. 11925. 20¢.
- Role of utilization in industrial forestry, by R. D. Garver. South. Lbrman., Mar. 15, 1930.
- Sap stain problem and a ten million dollar loss, by E. E. Hubert. Hardwood Rec., Mar. 10, 1924; South. Lbrman., Feb. 16, 1924; Timberman, Feb. 1924; W. Coast Lbrman., Mar. 15, 1924.
- *Second-growth southern hardwood timber, by B. H. Paul. South. Lbrman., Dec. 15, 1936. Mimeo. R1120.
- *Short lengths of softwoods in the industries, by E. M. Davis. Timberman, Sept. 1925; Amer. Lbrman., Aug. 15, 1925.
- Small sawmill utilization of Appalachian hardwoods:
 - Pt. 1 -- Lumber, by R. D. Garver and R. H. Miller. 1930. Out of print.
 - *Pt. 2 -- Ties, timbers, and lumber, by R. D. Garver and J. B. Cuno. 1930. Forest Products Laboratory Mimeo. R888. (Summary in Cross Tie Bulletin, Mar. 1931. Mimeo. R1086.)
- *Substitution of other materials for wood, by Rolf Thelen. U. S. Dept. Agr. Off. of Sec. Rept. 117. 1917.
- *Suitability of woods for use in barns and other farm structures. Tech. Note 246. 1940.
- *Suitability of wood for use in the frame house. Tech. Note 245. 1940.
- *Utilization of blue-stained lumber. Tech. Note 184. Rev. 1941.
- What forests give, by M. B. Bruere, U. S. Forest Service unnumbered publication. 1938. 15 ϕ .
- *Wooden snow fencing for highways, by G. C. Morbeck. Amer. Lbrman., Dec. 10, 1932.
- *Wood, a material with a future, by F. J. Champion. Wis. Carpenter & Bldr., Convention Number, 1936. Mimeo. R1119.
- *Wood slat snow fence, by A. O. Benson. Forest Products Laboratory Mimeo. R1085. Apr. 1936.

General Reports (continued)

*Wood seats for stadiums, by R. M. Wirka. Eng. News-Record, Apr. 20, 1931. FPL Mimeo. R1006.

Wood waste prevention, by Rolf Thelen. In U. S. Dept. Agr. Misc. Cir. 39, pp. 83-100. 1925. 20¢.

*Partial list of uses of forest products in substitutions for steel and tin. FPL Mimeo. R1289, Feb. 1942.

By Species

U. S. Forest Service foreign woods' series:

*Lignumvitae *Lauans *Iroko *Khaya *Greenheart *Balsa *Okoume *Mahogany

U. S. Forest Service American woods' series:

*Alder. red

*Ash

*Aspen

*Baldcypress

*Basswood

*Beech, American

*Birch

*Buckeye

*Butternut

*Cedar, Alaska yellow

* " . Atlantic white

, California-incense

, Eastern red

, Northern white

, Port Orford white

* " , Western red

*Cherry, black

*Chestnut

*Cottonwood

*Dogwood, flowering

*Elm

*Fir, Balsam

* " , Douglas

* " , noble

* " , white

*Hackberry

*Hemlock, Eastern

* " , Western

*Hickory

*Holly, American

*Larch, Western

*Locust, black

*Magnolia

*Maple

*Oak

*Pecan

*Persimmon *Pine. Eastern white

* ", jack

* " , lodgepole

* " , ponderosa

* " , red

* " , Southern

* " , sugar * " , Western white

*Poplar, balsam

* " , yellow

*Redwood

*Spruce, Eastern

* " , Engelmann * " , Sitka

*Sweetgum

*Sycamore, American

*Tamarack

*Tupelo

*Walnut, black

*Willow, black

By Species (continued)

- Red alder of the Pacific Northwest: its utilization with notes on growth and management, by H. M. Johnson and others. U. S. Dept. Agr. Bul. 1437. 1926. Out of print. (May be consulted in U. S. depository libraries.)
- *Light weight ash should be separated in shipping, by B. H. Paul. Wood Working Indus., Mar. 1930. Mimeo. R1153.
- Relation of growth factors to wood quality -- white ash, by B. H. Paul. Lbr. Trade Jour., Oct. 1, 1929.
- *Utilization of ash, by W. D. Sterrett. U. S. Dept. Agr. Bul. 523. 1917.
- Aspen: availability, properties, and utilization, by R. P. A. Johnson, Joseph Kittredge, Jr., and H. C. Schmitz. Minn. Agr. Exp. Sta. (St. Paul), Tech. Bul. 70. 1930. Out of print.
- A forest that "just growed": aspen, a weed species in the Lake States, demonstrates survival values and begins contributing to our forest wealth, by T. J. Mosley. Amer. Forests, Oct. 1931.

By Species (continued)

- *Some references on balsa and other light-weight woods. U. S. Forest Products Laboratory Mimeo. R1152, Oct. 1937.
- *Utilization of basswood, by W. D. Brush. U. S. Dept. Agr. Bul. 1007. 1922.
- Incense cedar, by J. A. Mitchell. U. S. Dept. Agr. Bul. 604. 1918. Out of print. (May be consulted in U. S. depository libraries.)
 - Southern white cedar, by C. F. Korstian and W. D. Brush. U. S. Dept. Agr. Tech. Bul. 251. 1931. 25ϕ .
- *Chestnut as a core wood, by G. C. Morbeck. Wood Workers Jour., Nov. 1930; Furn. Mfr., Nov. 1930; Appalachian Hardwood Club Brochure No. 4, Nov. 1930; Wood Construction, Oct. 15, 1930; Wood Working Indus., Oct. 1930.
- *Chestnut poles from man-killed and blight-killed trees, by R. P. A. Johnson. Furchasing Agent, July 1931; Hardwood Rec., Dec. 1930.
- *Blight-infected chestnut as durable as sound chestnut. Forest Products Laboratory Tech. Note 174.
- *Inexpensive paneled rooms of chestnut, by C. V. Sweet, Good Housekeeping, Apr. 1932.
- *Principal uses of chestnut, by G. C. Morbeck, R. P. A. Johnson, and C. V. Sweet. Hardwood Rec., July 1931.
- *The use of chestnut for boxing and crating, by R. P. A. Johnson. Purchasing Agent, Feb. 1931; same, Suitability of chestnut for boxes and crates, Barrel & Box & Packages, Jan. 1931.
- *Utilization guide for blight-killed chestnut. Forest Products Laboratory Tech. Note 224.
- Southern cypress, by W. R. Mattoon. U. S. Dept. Agr. Bul. 272, 1915. Out of print. (May be consulted in U. S. depository libraries.)
- Utilization of dogwood and persimmon, by J. B. Cuno. U. S. Dept. Agr. Bul. 1436. 1926.
- Utilization of elm, by W. D. Brush. U. S. Dept. Agr. Bul. 683. 1918.
- Properties and uses of Douglas fir, by McGarvey Cline and J. B. Knapp. U. S. Forest Service Bul. 88. 1911. Out of print. (May be consulted in U. S. depository libraries.)

By Species (continued)

- Properties of white fir and their relation to the manufacture and uses of the wood, by R. P. A. Johnson and M. R. Brundage. U. S. Dept. Agr. Tech. Bul. 408. 1934. 10ϕ .
- White fir lumber for small house construction, by R. P. A. Johnson. Amer. Lbrman., Dec. 14, 1929.
- *Greenheart: a timber with exceptional qualities. by A. K. Armstrong. Engin. News-Record, Jan. 29, Feb. 6, 1916. Mimeo. R595.
- *Black gum is no longer a "black sheep": now a valuable wood, by G. C. Morbeck. Memphis Lbrman., Apr.-June 1929.
- *Red gum: the versatile hardwood, by G. C. Morbeck. Memphis Lbrman., Jan.-Feb. 1932.
- *Properties of western hemlock and their relation to uses of the wood, by R. P. A. Johnson and W. H. Gibbons. U. S. Dept. Agr. Tech. Bul. 139. 1929.
- Commercial hickories, by A. T. Boisen and J. A. Newlin. U. S. Forest Service Bul. 80. 1910. Out of print. (May be consulted in U. S. depository libraries.)
- *How growth affects quality in hickory and ash, by B. H. Paul. Hardwood Rec., Jan. 10, 1925.
- *Quality of Appalachian hickory, by B. H. Paul. South. Lbrman., Apr. 6, 1929.
- *Red hickory as strong as white hickory. Forest Products Lab. Tech. Note 171.
- *Properties of western larch and their relation to uses of the wood, by R.F.A. Johnson and M. Bradner. U. S. Dept. Agr. Tech. Bul. 285. 1932.
- *Utilization of black locust, by J. B. Cuno. U. S. Dept. Agr. Circ. 131. 1930.
- History of shipmast locust, by S. B. Detweiler. Jour. Forestry, Aug. 1937.
- Identification of true mahogany, certain so-called mahoganies, and some common substitutes, by Arthur Koehler. U. S. Dept. Agr. Bul. 1050. 1922. Out of print. (May be consulted in U. S. depository libraries.)
- True mahogany, by C. D. Mell. U. S. Dept. Agr. Bul. 474. 1917. Out of print. (May be consulted in U. S. depository libraries.)
- *Judging the quality of sugar maple, by B. H. Paul and N. A. Norton. Wood Products, Mar. 1936.

-14-

By Species (continued)

- Utilization of bigleaf maple of the Pacific Northwest, by H. M. Johnson. U. S. Dept. Agr. Circ. 225. 1932. 5¢.
- Overcup oak for lumber, by R. D. Garver. South. Lbrman., Mar. 1935.
- Swamp chestnut oak for lumber, by R. D. Garver. South. Ibrman., Aug. 15, 1934.
- Water oak for lumber, by R. D. Garver. South. Lbrman., June 15, 1934.
 - Pecan: its characteristics and uses, by G.C. Morbeck. Memphis Lbrman., June 1927.
- Jack pine, by W. D. Sterrett. U. S. Dept. Agr. Bul. 820. 1920. Out of print. (May be consulted in U. S. depository libraries.)
- Loblolly or North Carolina pine, by W. W. Ashe. N. C. Geol. & Econ. Survey Bul. 24. 1915.
- Utilization and management of lodgepole pine in the Rocky Mountains, by D. T. Mason. U. S. Dept. Agr. Bul. 234. 1915. 15ϕ .
- Longleaf pine, by W. R. Mattoon. U. S. Dept. Agr. Bul. 1061, 1922. 15ϕ .
- Lumber from old-growth versus lumber from second-growth in Pinus strobus, by E. M. Davis. Jour. Forestry, Nov. 1940.
- *Reducing bowing and crooking of lumber cut from second-growth southern yellow pine, by B. H. Paul. South. Lbrman., Jan. 1, 1938.
- Rapid growth hazards usefulness of southern pine, by Arthur Koehler. Jour. Forestry, Feb. 1938.
- Southern pine forestry in 1950, by R. D. Garver. South. Lbrman., Oct. 1, 1929; Lbr. Trade Jour., Oct. 1, 1929; Amer. Lbrman., Sept. 21, 1929.
- *Southern yellow pine. Forest Products Laboratory Tech. Note 214.
- Sugar pine, by L. T. Larsen and T. D. Woodbury. U. S. Dept. Agr. Bul. 426. 1916. Out of print. (May be consulted in U. S. depository libraries.)
- *The white pines. Forest Products Laboratory Tech. Note 215.
- *Variations in the wood of yellow poplar from the Southern Appalachian Region, by B. H. Paul and N. A. Norton. South. Lbrman., Mar. 15, 1937.
- Quebracho wood and its substitutes, by C.D.Mell and W.D.Brush. U.S.Forest Service Circ.202. Out of print. (May be consulted in U.S.depository libraries.)

By Species (continued)

- *The strength and related properties of redwood, by R. F. Luxford and L. J. Markwardt. U. S. Dept. Agr. Tech. Bul. 305. 1932.
- Sitka spruce: its uses, growth, and management, by N. L. Cary. U. S. Dept. Agr. Bul. 1060. 1922. Out of print. (May be consulted in U. S. depository libraries.)
- Utilization of sycamore, by W. D. Brush. U. S. Dept. Agr. Bul. 884. 1920. Out of print. (May be consulted in U. S. depository libraries.)
- Uses of western woods, by E. J. Hanzlik (in his Trees and Forests of Western United States, pp. 118-24). Portland, Ore., Four-L-Lbr. News, 1928. \$2.50.
- Black walnut for timber and nuts, by W. R. Mattoon and C. A. Reed. U. S. Dept. Agr. Farm. Bul. 1392. 1924. Rev. 1933. 54.
- Selling black walnut timber, by W. D. Brush. U. S. Dept. Agr. Farm. Bul. 1459. Rev. 1926. 54.
- Utilization of black walmit, by W. D. Brush. U. S. Dept. Agr. Bul. 909. 1921. Out of print. (May be consulted in U. S. depository libraries.)
- Circassian walnut, by G. B. Sudworth and C. D. Mell. U. S. Forest Service Circ. 212. 1913. Out of print. (May be consulted in U. S. depository libraries.)
- Willows: their growth, use, and importance, by G. N. Lamb. U. S. Dept. Agr. Bul. 316. 1915. Out of print. (May be consulted in U. S. depository libraries.)
- Basket willow culture, by G. N. Lamb. U. S. Dept. Agr. Farm. Bul. 622. 1914. 5ϕ .

By Industries

Aircraft

- *Aircraft woods: their properties, selection, and characteristics, by L. J. Markwardt. Report No. 354, Natl. Advisory Committee for Aeronautics. 1930. FPL Mimeo. R1079.
- *The use of wood for aircraft in the United Kingdom. Report of the Forest Products Mission. FPL Mimeo. 1540. June 1944.

By Industries (continued)

Buildings

- *Dimension panels in a modular system of small house construction. FPL Mimeo. R1251. 1941.
- Evolution of home construction, by R. P. A. Johnson. Residential Appraisers Review, Apr. 1941.
- *Nailing dense hardwoods. FPL Tech. Note 247. 1941.
- Nailing hardwoods, by R. P. A. Johnson. Amer. Lbrman., Apr. 5, 1941.
- Selection of lumber for farm and home building, by C. V. Sweet and R. P. A. Johnson. U. S. Dept. Agr. Farm. Bul. 1756. 1936. 5¢.
- Use and abuse of wood in house construction, by R. P. A. Johnson and E. M. Davis. U. S. Dept. Agr. Misc. Pub. 358. 1939. 10¢.
- Wood frame buildings, by F. J. Champion. Chem. & Metall. Engin., May 1941.
- Wood handbook: basic information on wood as a material of construction with data for its use in design and specifications, by Forest Products Laboratory. U. S. Dept. Agr. unnumbered publication. 1935 (slightly revised edition 1940). 35¢.
- *Selection, installation, finish, and maintenance of wood floors for dwellings, by R. K. Helphenstine, Jr. U. S. Dept. Agr. Circ. 489. 1938.
- *Presenting semiprefabrication, by C. V. Sweet. Amer. Lumberman, March 18, 1944.

By Industries (continued)

Containers

- *Brief description of the manufacture of beer and whiskey barrels. FPL Mimeo. R1030. 1934.
- Description of the tests made of southern hardwoods for butter boxes and tubs. Barrel & Box & Packages, Oct. 1934.
- *Oak beer barrels must prepare to meet keen competition, by R. P. A. Johnson. Brewery Age, Jan. 1934. Mimeo. R1027.
- Species of wood suitable for use in contact with foodstuffs, by R. P. A. Johnson. Cold Storage Locker Operator's Conference Proc. 1939. (Copies of Proceedings available from Prof. Marvin A. Schaars, Rm.204, Agr.Hall, University of Wisconsin, Madison, Wis., for 75¢.)
- Tests of woods for butter containers with reference to imparting odor and flavor, by E. M. Davis. U. S. Dept. Agr. Misc. Pub. 250. 1936. 5¢.
- *A treatment for red oak beer kegs. Misc. Mimeo. 1934.
- *Use of wood by the fruit and vegetable industries of Florida, by J. B. Cuno. Mimeo. R1097. July 1936.
- *Wooden rosin barrels, by J. B. Cuno. Barrel & Box & Packages, Sept. 1940. Mimeo. R1233, 1939.

By Industries (continued)

Cross Arms

Strength tests of cross-arms, by T. R. C. Wilson. U. S. Forest Service Circ. 204. 1912. Out of print. (May be consulted in U. S. depository libraries.)

Furniture

- Chair manufacture in Oregon and Washington, by W. H. Gibbons and H. M. Johnson. West Coast Lbrman., May 1, 1925.
- Economic development of the furniture industry of the South and its future dependence upon forestry, by C. F. Korstian. N. C. Div. of Forestry, Econ. Paper 57. 1926.
- Lumber consumption trends in the furniture industry: a progress report of the forest survey requirements phase, by R. P. A. Johnson. Hardwood Rec., Jan. 1939. Editorial of same in Amer. Lbrman., Jan. 28, 1939. (Copies available for distribution from the U. S. Forest Service, Washington, D. C.)
- Oregon and Washington furniture industry, by W. H. Gibbons and H. M. Johnson. Timberman, Apr. 1925.

Planing Mill Products

Doors made from lumber of different moisture values, by J. B. Cuno. Wood Working Indus., Feb. 1932.

*Wooden doors, by G. E. Heck. Timberman, Apr. 1936. Mimeo. R1104.

Poles and Posts

Pole timber of the Northwest: detailed data covering an important branch of the Pacific Northwest lumber industry, by W. H. Gibbons. West Coast Lbrman., May 1, 1926.

Ties and Timbers

- Application of mechanical power in the production, by C. J. Telford. Cross Tie Bul., Sept. 1936.
- *Small sawmill utilization of Appalachian hardwoods for ties, by R. D. Garver and J. B. Cuno. Cross Tie Bul., Mar. 1931. Mimeo. R1086.

By Industries (continued)

Ties and Timbers (continued)

- *Tests indicate the suitability of woods for crossties, by L. J. Markwardt. Ry. Eng. & Maintenance, Jan. 1931. Mimeo. R910.
- Mine timber, its selection, storage treatment, and use, by R. R. Horner and H. E. Tufft. Bur. of Mines, Dept. Interior in cooperation with the Forest Service, Dept. Agr., U. S. Bur. Mines Bul. 235. 1925. 30¢.
- Timber requirements for mines in the United States, by W.D. Brush. U. S. Forest Service, 1938.

Veneer and Plywood

- *Manufacture of veneer. Forest Products Laboratory Mimeo. R285. 1939.
- Plywood in relation to the veneer package industry, by C. V. Sweet. Wood Products, Dec, 1939.
- *Properties of ordinary wood compared with plywood. Forest Products Laboratory Tech. Note 131.

Miscellaneous

- *Excelsior and its manufacture. Forest Products Lab. Misc. Mimeo. 1941.
- Handling and working of lumber for Venetian blinds, by G. C. Morbeck. Timberman, Dec. 1937; Amer. Lbrman., Nov. 20, 1937; South. Lbrman., Dec. 15, 1937; Wood Products, Nov.-Dec. 1937.
- Hickory for handles, by R. K. Helphenstine, Jr., Wood Turning, Feb. 1920.
- *How to make a laminated diving board. Forest Products Lab. Tech. Note 244. 1940.
- *Importance of proper woods for Venetian blinds, by G. C. Morbeck. South. Lbrman., May 1, 1937.
- *Production of loblolly pine pulpwood in Mid-Atlantic region, by J. B. Cuno. South. Pulp & Paper Jour., Mar. and May 1939. Mimeo. R1228.
- Production of maple sirup and sugar, by A. H. Bryan and others. U.S. Dept. Agr. Farm. Bul. 1366. 1924. 5ϕ .

By Industries (continued)

Miscellaneous (continued)

- Straightening used barrel staves, by R. P. A. Johnson. Wooden Barrel, Mar. 1940; Natl. Coopers Jour., Apr. 1940; Barrel & Box & Packages, May 1940.
- *Use of wood in American machinery, by G. C. Morbeck. Hardwood Rec., beginning in July 1936 issue for several months. Mimeo. R1100.
- *Use of wood in chemical apparatus, by A. W. Schorger. Metall. & Chem. Engin., May 15, 1918. Mimeo. R512.
- *Guide to use of wood as an alternate material in agricultural implements, by A. O. Benson and C. C. Bell. FPL Mimeo. R1298, June 1942.

Waste

- *Briquetting of wood waste. FPL Mimeo. R842. 1939.
- *Definitions and classifications of waste in cutting factory lumber. FPL Mimeo. R1149. 1937.
- *Wood plastics as developed at the Forest Products Laboratory and their future importance, by E. C. Sherrard, Edw. Beglinger, and J. P. Hohf. FPL Mimeo. R1209. 1941.
- *Limitations to the use of sawdust, FPL Tech. Note 167. 1922.
- *Outlets for wood waste. FPL Mimeo. R64. Revised 1943.
- Putting wood waste to work, by S. T. Dana. U. S. Dept. Agr. Yearbook Separate 856. 1920. Out of print.
- *Use of sawdust and shavings. FPL Mimeo. R944. 1932.
- *Utilization of wood formerly wasted, by T. J. Mosley. Mfrs. Record, Mar. 3, 1932. Mimeo. R1123.
- *Chemical utilization of wood waste, by L. F. Hawley. Jour. Forestry, Feb. 1931. FPL Mineo. R945.
- *Wood Flour: A general statement of the manufacture and use of wood flour and the status of the industry. FPL Mimeo. R565. 1941.
- *Wartime status of sawdust, shavings, and other wood waste as commercial raw materials. FPL Mimeo. R1450. July 1944.

Small Dimension Stock

- *Better bundling of dimension stock, by A. O. Benson. South. Lbrman., Dec. 15, 1932.
- *Cutting the full woods run to dimension, by A. O. Benson. Wood Working Indus., June 1925.
- *Cutting sizes of furniture lumber, by A. O. Benson. Furn. Mfr., May 1928.
- *Dimension stock: careful piling for air seasoning minimizes loss, by A. O. Benson. Amer. Lbrman., July 4, 1931; South. Lbrman., Nov. 15, 1930.
- *Dimension stock from hardwoods of the Lake States, by A. O. Benson. Hardwood Rec., Mar.-Apr. 1931; Amer. Lbrman., June 27, 1931.
- *Dimension stock marketing, by A. O. Benson. South. Lbrman., July 1, 1931; Amer. Lbrman., Aug. 22, 1931; Wood Working Indus., July 1931; Hardwood Rec., July 1931.
- *Dimension stock methods for New England hardwoods, by A. O. Benson. U. S. Dept. Agr. Circ. 394. 1936.
- *Dimension stock production cost keeping, by A. O. Benson. Wood Working Indus., May 1931; South. Lbrman., May 15, 1931; Hardwood Rec., June 1931; Amer. Lbrman., Aug. 15, 1931.
- *Dimension stock -- warping of maple and birch cut-up material, by O. W. Torgeson. Amer. Lbrman., Sept. 12, 1932.
- *Manufacture of dimension stock from northern hardwoods, by A. O. Benson. U. S. Dept. Agr. Circ. 163. 1931.
- Production and use of small dimension stock in the chair industry, by A. T. Upson and A. O. Benson. Chicago Assn. of Wood-Using Indus., 1923. Out of print.
- *Seasoning of dimension stock, by O. W. Torgeson. (Pt. 1) Wood Working Indus., June 1932, (Pt. 2) Furn. Index, Oct. 1932. Pt. 1 and Pt. 2 in FPL Mimeo. R1242.
- Small dimension stock, its seasoning, handling, and manufacture. Rept. of Natl. Comm. on Wood Utilization, U. S. Dept. Commerce. 10ϕ .
- Taking stock of dimension stock, by A. O. Benson. Memphis Lbrman., Mar. 1930.

MISCELLANEOUS

- Chain saw for girdling, by J. B. Cuno. Jour. Forestry, May 1937.
- Check list of the forest trees of the United States: their names and ranges, by G. B. Sudworth. U. S. Dept. Agr. Misc. Circ. 92. Rev. 1927. Out of print. (May be consulted in U. S. depository libraries.)
- *Chinking materials for log cabins. FPL Mimeo. 1938.
- *Effect of time of cutting timber on its durability. FPL Tech. Note F-15.
- Experiments in the planing of hardwoods, by E. M. Davis. Amer. Soc. Mech. Engrs., Transactions, Jan. 1938. (Same.—Abstract, Hardwood Rec., Mar. 1938.)
- Famous trees, by C. E. Randall and D. P. Edgerton. U. S. Dept. Agr. Misc. Pub. 295. 1938. 15¢.
- *Fifty years ahead a research viewpoint, by C. P. Winslow. Forest Products Laboratory Mimeo. R1072. Nov. 1935.
- *Forest products and defense, by C. P. Winslow. FPL Mimeo. R1250. 1941.
- *Foreign woods imported into the United States. U. S. Dept. Agr. 1939.
- *The Forest Products Laboratory, a brief account of its work and aims. U. S. Dept. Agr. Misc. Pub. 306. 1938.
- Further experiments in the planing of hardwoods, by E. M. Davis. Amer. Soc. Mech. Engrs., Transactions, Feb. 1939.
- *Government publications of general interest on wood and trees. Forest Products Laboratory Tech. Note D-6. Revised 1942.
- *Hardwoods of the South. Forest Products Laboratory pamphlet. Dec. 1935.
- *Holding the market for wood, by C. V. Sweet. South. Lbrman., Dec. 15, 1935. Mimeo. R1103.
- *A hundred definitions pertaining to wood and other forest products. FPL Tech. Note 240. 1932.
- Improved harvesting and utilization of the current timber crop, by C. V. Sweet. Jour. Forestry, Sept. 1938.
- Laboratory looks at wood: some new developments in wood utilization, by C. P. Winslow. Hardwood Rec., Oct. 1938.
- *Log buildings, by S. A. Witzel. University of Wisconsin, Extension Service Stencil 158. Mar. 1935.

MISCELLANEOUS (continued)

- *Lumber manufacturing, wood-using, and allied associations (a list). U. S. Forest Service. 1943.
- *Machining and related properties of southern hardwoods, by E. M. Davis. South. Lbrman., Dec. 15, 1936.
- *Making log cabins endure, by G. M. Hunt. Mimeo. R982. 1941.
- *Markets for New England's wind-felled forests, by C. P. Winslow. Amer. Forests, Mar. 1939.
- *Measuring green southern yellow pine pulpwood by weight or by cord, by R. H. Miller. Paper Trade Jour., July 17, 1941; South. Pulp and Paper Jour., June 1941.
- *Pertinent facts on salvage of New England timber. Forest Products Laboratory Mimeo. R1183. Nov. 1938.
- *Possibilities of enlarged utilization of forest products in the deep South, by T. R. Truax. South. Lbrman., Dec. 15, 1940.
- Power pruning, by J. B. Cuno. Jour. Forestry, Aug. 1935.
- Products of American forests, by J. A. Hall and T. J. Mosley. U. S. Dept. Agr. unnumbered publication. 1939. 20¢.
- *Properties, selection, and suitability of woods for woodworking, by D. G. Coleman. Indus. Arts & Vocational Education, Dec. 1940-Feb. 1941.
- *Recent developments in the chemical utilization of wood, by C. P. Winslow. North Texas State Teachers' College, Denton, Tex. 1940. Mimeo. R1230.
- *Recent tests in planing southern and other hardwoods, by E. M. Davis. South. Lbrman., Dec. 15, 1937.
- *Research in forest products, annual report 1938. Forest Products Laboratory Mimeo. R1179.
- Research work of U. S. Forest Products Laboratory benefits retail lumber-man, by F. J. Champion. Miss. Val. Lbrman., Aug. 15, 1941.
- *Rough method for estimating the specific gravity of wood, by B. H. Paul. South. Lbrman., Mar. 1, 1938; Wood Products, Mar. 1938. Mimeo. R1246.
- *Sidelights on southern hardwoods, by B. M. Davis. South. Lbrman., Dec. 15, 1934.
- *Some books on wood (a list). Forest Products Laboratory Mimeo. R399. Revised 1943.
- *Some common fallacies about wood. Forest Products Lab. Mimeo. R1167. 1938.

MISCELLANEOUS (continued)

- *Some machining and related properties of hackberry, by E. M. Davis. South. Lbrman., Dec. 15, 1938.
- Stumpage and log prices for the calendar year 1939, comp. by H. B. Steer. U. S. Dept. Agr. Statis. Bul. 75, issued in 1941. 104.
- Stumpage prices of privately owned timber in the United States, by H. B. Steer. U. S. Dept. Agr. Tech. Bul. 626. 1938. 20¢.
- Statistics of forest products in the Rocky Mountain states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 64. 1938. 106.
- Forest production statistics of the Pacific Coast states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 65. 1938. 10¢.
- Statistics of forest products in the Northeastern states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 70. 1940. 154.
- Forest products statistics of the Southern states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 69. 1939. 15¢.
- Forest products statistics of the Lake states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 68. 1939. 104.
- Forest products statistics of Central and Prairie states, comp. by R. V. Reynolds and A. H. Pierson. U. S. Dept. Agr. Statis. Bul. 73. 1941. 15ϕ .
- *Subject index of Forest Products Laboratory technical notes.
- *Texture of southern hardwoods and locality of growth, by E. M. Davis. South. Lbrman., Dec. 15, 1933.
- *Treating Christmas trees to make them safe from fire, by Arthur Van Kleeck.
 Forest Products Laboratory Mimeo. R1244. Nov. 1940.
- Trends and needs in modern wood utilization, by C. P. Winslow. Jour. Forestry, Sept. 1939.
- *Turning qualities of southern hardwoods, by E. M. Davis. Hardwood Rec., Aug. 1935; Memphis Lbrman., Aug. 1935. Mimeo. R1101.
- *Weights of various woods grown in the United States. Forest Products Laboratory Tech. Note 218. Rev. 1931.
- Wood in modern warfare, by D. G. Coleman. Amer. Forests, Jan. 1940.
- *Wood use trends in Europe, by C. P. Winslow. Amer. Forests, Oct. 1938.

MISCELLANEOUS (continued)

- *Wood's technological coming-of-age, by F. J. Champion. FPL Mimeo. R1442, Dec. 1943.
- *War-time model hopper unit for burning various forms of wood in standard domestic furnaces, by C. V. Sweet, R. H. P. Miller, and Joe Donny. Mimeo, R1440, Dec. 1943.
- *Wooden mattresses for Old Man River, by E. M. Davis, Amer. Forests. Oct. 1937.
- Use of logs and poles in farm construction, by T. A. H. Miller. U. S. Dept. Agr. Farm. Bul. 1660. 1935. 5¢.
- *Machining and related characteristics of southern hardwoods, by E. M. Davis. U. S. Dept. Agr. Tech. Bul. 824, May 1942.
- *Wood fuel and wood stoves. FPL Mimeo. R1279, June 1942.
- *Wood tanks, by R. P. A. Johnson. FPL Mimeo. R1285, Apr. 1942.

STATISTICS OF PRODUCTION AND CONSUMPTION

(Issued by the Bureau of the Census, U. S. Dept. of Commerce, Washington, D. C.)

Statistical abstract of the United States, 1940. \$1.50.

Manufactures 1939: lumber and timber basic products group. (16th census of the United States, 1940) 10¢.

Forest products 1938: lumber, lath and shingles. (Processed)

Biennial census of manufactures, 1937. Reprint of part 1, 35¢; part 2, 60¢.

OTHER LISTS OF PUBLICATIONS

Forestry, lumber and timber, national forests, ranges, wood preservation --list of publications relating to above subjects for sale by Superintendent of Documents, Government Printing Office, Washington, D. C. 36th edition, Price List No. 43. 1944.

Index to publications of the U. S. Dept. Agr., 1901-25, by M. A. Bradley assisted by M. G. Hunt. Superintendent of Documents, Government Printing Office, Washington, D. C., 1932. \$3.25.

Same. -- Supplement, 1926-30, 1935. \$1.50.

1931-37, 1939, \$1.25,

OTHER PUBLICATION LISTS ISSUED BY THE

FOREST PRODUCTS LABORATORY

The following lists of publications which deal with the other investigative projects of the Forest Products Laboratory are obtainable upon request:

- Boxing and Crating -- Strength and serviceability of shipping containers, methods of packing.
- Building Construction Subjects -- Partial list of Government publications of interest to architects, builders, retail lumbermen, and engineers.
- Chemistry of Wood and Derived Products Chemical properties and uses of wood and chemical wood products, such as turpentine, alcohol, and acetic acid.
- Glue and Plywood -- Development of waterproof glues, preparation and application of various glues, plywood manufacturing problems.
- Growth, Structure, and Identification of Wood Structure and identification of wood; the effect of cellular structure of wood on its strength, shrinkage, permeability, and other properties; the influence of environmental factors, such as light, soil, moisture, and fire, on the quality of wood produced; and secretions of economic value produced by trees and their exploitation.
- Fungus Defects in Forest Products (Pathology in cooperation with the Bureau of Plant Industry, Soils, and Agricultural Engineering) -- Heart rots of trees; decay, molds, and stains in timber, in buildings, and in wood products; antiseptic properties of wood preservatives.
- Mechanical Properties of Timber -- Strength of timber and factors affecting strength; design of wooden articles or parts where strength or resistance to external forces is of importance.

OTHER PUBLICATION LISTS ISSUEL BY THE

FOREST PRODUCTS LABORATORY (continued)

- Pulp and Paper -- Suitability of various woods for pulp and paper; fundamental principles underlying the pulping and bleaching processes; methods of technical control of these processes; relation of the chemical and physical properties of pulps and the relation of these properties to the paper-making qualities of the pulps; waste in the industry, for example, decay in wood and pulp, utilization of bark, white water losses, etc.
- Seasoning of Wood -- Experimental and applied kiln drying, physical properties, air drying, steam bending.
- Use of Wood in Aircraft Construction -- Strength, selection and character of aircraft wood and plywood; fabrication and assembly problems; methods of calculating the strength of wooden parts; structure of wood in relation to its properties and identification.
- Wood Finishing Subjects -- Effect of coatings in preventing moisture absorption; painting characteristics of different woods, weathering of wood.
- Wood Preservation -- Preservative materials and methods of application; durability and service records of treated and untreated wood in various forms.